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JPRS 82405

7 December 1982



# China Report

ECONOMIC AFFAIRS

No. 290

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7 December 1982

## CHINA REPORT ECONOMIC AFFAIRS

No. 290

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## NATIONAL POLICY AND ISSUES

### VIEWS ON ECONOMIC GOALS SET BY 12TH CPC NATIONAL CONGRESS

#### Steady Steps To Lofty Goal

Shanghai WENHUI BAO in Chinese 17 Sep 82 p 3

[Article by Zhu Shuxian [2612 6615 0341]: "Lofty Goal, Steady Steps"]

[Text] The general objective of China's economic construction formulated by the 12th National Party Congress for the two decades between 1981 and the end of this century is, while steadily working for more and better economic results, to quadruple the gross annual value of industrial and agricultural production. The congress at the same time formulated the strategic objective, priorities and steps as well as a series of important principles and policies for the attainment of the objective. This is a lofty objective which is realistic and stresses actual results. It will mobilize and guide people of all nationalities in the country to strive for the creation of a new situation in socialist modernization and to advance with steady steps toward the goal of accomplishing the four modernizations.

Why Is "Steadily Working for More and Better Economic Results" Stressed as a Prerequisite?

This is the first time in our history for a fairly comprehensive and specific strategic objective in economic construction to be formulated to cover such a long period as 20 years. This objective has been the subject of long deliberations and repeated serious studies by the Party Central Committee. It embodies our experiences, both positive and negative, and particularly the new experiences since the Third Plenary Session of the 11th Party Central Committee, expresses the common desire of a billion people, and reflects the objective requirements of historical development.

To attain this objective, we must attain an average progressive increase rate of 7.2 percent for industrial and agricultural output value each year. Such a rate of increase is fairly high in the world, but still not up to the highest level we have previously attained. However, history has proved that for a fairly long period in the past, we have committed the "leftist" error in one-sidedly striving for high speed in economic construction. The scope of capital construction was blindly expanded; an excessive portion of our national income was used in accumulation; there was a serious losses and waste. As a result, even though the speed of development seemed to be very impressive,

the increase in the supply of consumer goods was very slow, and the improvement in people's livelihood was incommensurable with the labor they had expended. That is why the strategic objective formulated this time stresses "steadily working for more and better economic results" as a prerequisite, and calls for a fairly steady speed and better economic results, in order that people may gain more real benefits. From the changes in the gross output value, we can observe the general scope and the rate of increase in production in a certain period. Under the socialist system, the goal of production is to satisfy the daily growing material and cultural needs of the society. Therefore, the economic result of all our economic activities, including, first of all, the activities of industrial and agricultural production, will depend on whether they can satisfy the daily growing material and cultural needs of the broad masses of people. In other words, the products must be able to meet social needs, or, as we commonly say, "easily marketable," before our activities in production can have good economic results. If the products are not "easily marketable," they will be stockpiled in the warehouses and some of them may be discarded as worthless. In this case, even though the output and output value are listed in the statistics table and the profits handed in and taxes paid are recorded in the account book, greater output and output value will mean greater waste, and may even produce negative economic results with the loss of social wealth. That is why in attaining this strategic objective, we must first pay attention to the question of economic results.

On this basis, it is even more important that we should steadily work for more and better economic results. Generally speaking, in a certain period when equal amounts of labor and money are used in production, more products--easily marketable products of course--will mean better economic results, obtained through technical transformation, higher management level and higher labor productivity and fixed asset utilization rate; lower consumption of energy and other materials; shorter capital construction periods; faster turnover of funds and faster development of the newly emerging industries; more trial production of new products, and so forth. We have achieved remarkable success in these respects through hard work since the Third Plenary Session of the 11th Party Central Committee; however, in many fields, the standards of our economic results are not up to the highest level we have previously attained, and are far below those of the economically developed countries.

This analysis has shown that in order to attain the lofty strategic objective set by the party, we must carefully plan for a proportionate relationship among various sectors of the national economy so that there will be a better balance between production and demand, between national construction and people's livelihood, and so forth. We must also increase the social productive forces by a wide margin. This is obviously a very arduous task. The view that there is nothing extraordinary with this growth rate is erroneous. At the same time, the analysis shows our great potential. As long as we conscientiously implement the series of important principles and policies laid down by the 12th National Party Congress and work steadfastly, we can certainly attain this lofty goal. There should be no justification for the lack of confidence and the idea of inertia.

Then how shall we quadruple the gross annual value of industrial and agricultural production? First, we must understand that ours is a socialist

country which is different from those countries and regions mainly engaging in the processing industry. We cannot purely rely on other countries' resources, and, in many undertakings, we have to begin with the exploitation of resources. This will call for heavy investments and long construction periods. Therefore, by 2000, the total output of energy and the output of such important products as steel, cement, chemical fertilizers, cotton yarn, paper and so forth, cannot be possibly quadrupled. According to our actual capability, we may probably be able to double the output of 1980. In the machinery trade, however, after the readjustment of its service orientation, the output of its main products can be trebled or quadrupled. Secondly, through technical transformation, enterprise reorganization and improved management, we can reduce our consumption by a wide margin, improve the quality of products and increase the intensity of processing so that with the same amounts of energy and raw materials, we can produce a lot more products and increase their output value several times over. Thirdly, if we can speed up the development of some newly emerging industrial sectors, such as electronics, information transmission, nuclear energy, petro-chemical industry, and new types of materials, it will also greatly help in the increase in output and output value. After all, we have great potential for technical transformation and developing new industries. Our present technology of production, on the whole, is at the 1950 or early 1960 level of the economically developed countries, and many new techniques and new industries were developed in the past 20 years. It should be possible for us to reach the present level of the economically developed countries within the 20 years from 1981 to 2000. It should be pointed out that because of our old habit formed in many years and our ignorance, our understanding and field of vision of the role of science in the development of production are still inadequate. We must fully assess our capability in tackling difficult scientific problems.

#### Why Is It Necessary for Us To Take Two Different Steps in Realizing the Strategic Objective?

In order to realize our lofty strategic objective for the next 20 years, the 12th National Party Congress also stipulated that two different steps should be taken in our strategic planning. In the first decade, we should mainly aim at laying a solid foundation, accumulating strength and creating the necessary conditions. The rate of economic growth cannot be very high. Generally speaking, the average rate of annual growth will be 4-5 percent during the Sixth Five-Year Plan, and 5-6 percent during the Seventh Five-Year Plan. The second decade will be a period of vigorous economic development, and the growth rate will be much higher--a progressive annual increase of approximately 9 percent. Taking two different steps is an important policy decision. It enable us to advance steadfastly, and fully guarantees the ultimate realization of the strategic objective.

Why can't the gross industrial and agricultural output be fairly quickly increased in the next several years, and why has the all-round economic upsurge to wait until the next decade? The reasons are as follows: First, we should further carry out readjustment, restructuring, reorganization and improvement. This is an arduous task and must take a fairly long time. Secondly, the backwardness in our energy and transportation facilities cannot be radically changed within a short time. The exploitation of energy, the development

of transportation, metallurgy and chemistry, and the construction of mines all require heavy investments and long construction periods. Building a hydropower station with an installed capacity of 1 million kws, for example, will require an investment of at least 1 billion yuan and a construction period of 7 to 8 years, and sometimes more than 10 years. Again, in building a large opencut coal mine with an annual output of 90 million tons, an investment of more than 3 billion yuan and a construction period of more than 10 years are required. Thirdly, the rapid development of new industries and all industrial and agricultural production depends on scientific and technologic development, on some breakthroughs in the key technology, and on the technical transformation of the existing enterprises. Because of our shortage of technical and financial resources, these jobs can only be carried out gradually and selectively over a long period, instead of proceeding on an all-out basis in the immediate future. Fourthly, we need time, and a relatively long time, to train our personnel and to raise the level of our enterprise management.

Whether our preparatory work in the first decade can be closely connected with the vigorous economic development in the second decade will be decided by our work in the following important aspects: First, our readjustment, reorganization, improvement and technical transformation must show remarkable results. We have already had a good start and accumulated fairly rich experiences in these aspects. We can certainly do this job well as long as we sum up our experiences in good time and pool our resources in continuing our work. When this work has been properly carried out, we will be able to show results and speed. Secondly, we must concentrate the necessary financial and material resources on the state key projects, particularly the projects of energy and communications development. The system of "cooking in separate kitchens" and differential administration in finance and profit-sharing among enterprises adopted in recent years play a positive role and should be continued with perseverance. The shortcoming is that the financial resources are too dispersed to form a "fist" to be used in the construction of key projects; and without these key projects, it will be difficult for us to change the backwardness in energy, communications and other important sectors. Therefore, coordinating all the activities of the nation like moves on a chessboard and guaranteeing the key projects are an important manifestation of socialist superiority. Thirdly, we must make significant progress in science, technology and the training and use of personnel. We must adopt practical measures to select men of action who are in their prime of life and have both political integrity and ability for strengthening and improving the leading bodies, including the leading bodies of enterprises. This job must be carried out and completed quickly, since it is the core of the problem on which our ability or inability to realize the 20-year plan hinges.

We can see, with full confidence, the many favorable conditions for our economic development up to the end of the century. The turmoil which has lasted many years have been ended and the focus of work for the whole party has been shifted to socialist modernization. The guiding thought of the party in economic work has been set right and we are now more familiar with the laws of socialist modernization than ever. These advantages will produce even greater effects in our future practice. In more than 30 years since the

founding of the People's Republic, we have met with many setbacks. However, we have also set up a fairly strong material and technical foundation. After the national economic readjustment, this foundation will play an even greater role in our future construction program. The international situation is, on the whole, favorable to us. Of course, the end of the century is still 18 years away, and we will inevitably encounter many unexpected new developments and new problems. However, since our strategic objective is practical and based on our capability, it can certainly be realized through the hard struggles of the whole party and the people of various nationalities in the country.

#### Foundation of Economic Growth

Shanghai WENHUI BAO in Chinese 17 Sep 82 p 3

[Article by Xu Jingan [1776 2529 1344]: "Lay a Good Foundation, Usher In a New Period of Vigorous Economic Growth"]

[Text] To attain the strategic objective of economic construction which will last to the end of the century, we must shift our economic work on to the path of improving economic results as the central task. By the year 2000, according to an estimate, the total energy output and the output of the important means of production will double those in 1980, while the gross industrial and agricultural output will be quadrupled. This will demand a decrease in the consumption of energy and raw materials, the improvement of quality and the increase of processing intensity so that we can use the same amounts of energy and raw materials to create more value and to increase the output value by a wide margin. In order that the people will be comparatively well-off both materially and culturally, a proper ratio should be maintained between consumption and accumulation in the distribution of national income. In other words, construction in future will mainly rely on the improvement of investment returns so that a certain scope of production and construction, and a certain rate of economic growth can be maintained.

To realize this lofty strategic objective, the Party Central Committee has decided to divide the 20-year plan into two stages: In the first decade, we should mainly aim at laying a solid foundation, creating the necessary conditions and accumulating strength; and the rate of economic growth cannot be very high. In the second decade, we should usher in a new period of vigorous economic development.

Why Can't the Rate of Economic Growth in the First Decade Be Very High?

The rate of economic growth cannot be decided by our subjective wish. The rate of economic development could not be high mainly because of restrictions from various irrational factors left over from the past. The one-sided stress on the development of heavy industry has resulted in an imbalance between agriculture, light industry and heavy industry. After readjustment, the proportionate relationship between heavy and light industries has become harmonious. However, agriculture is still lagging behind heavy and light

industries in development, and cannot meet the requirements of the national economy. Because of the blind development in the processing industry, the existing enterprises are using excessive amounts of energy and raw materials, resulting in a serious shortage of energy and raw materials and a severe strain on the means of transportation. Because of the stress on capital construction and the neglect of technical transformation, many enterprises are using outdated equipment and backward technology, resulting in high consumption and poor quality. Because of the irrational system of economic management and the sharing of resources by too many localities and departments, and by the "small and complete" and "large and complete" enterprises, the level of comprehensive utilization of resources is very low. Because of the neglect of science and education, our science and technology are backward and skilled personnel is seriously insufficient. All these factors hamper the development of our economy and the improvement of economic results. Therefore, in the first decade, we cannot, and should not, strive for an excessive speed in economic development. Instead, we should devote our main efforts to the elimination of the economic problems left over from the past, and gradually streamline our economic structure as well as the organizational structure of the enterprises and the economic system. In this way, although the rate of growth in the first decade cannot be very high, we will be able to usher in a new period of vigorous economic development and to realize the set strategic objective by laying a solid foundation. If we, on the contrary, strive for a high growth rate in the first decade, we will not be able to overcome and correct the various irrational factors left over from the past, and may even aggravate them. Then even though there may be a temporary upswing, the high rate cannot be sustained and will again drop. The quest for impractical speed will hinder the realization of the strategic objective.

What Should Be Prepared in the First Decade for Development in the Second Decade?

According to the set strategic steps, preparations should be made in the first decade in two different ways for the development in the second decade. On the one hand, we should effectively carry out the economic readjustment, restructuring, reorganization and improvement; and, on the other hand, we should strengthen our work in agriculture, energy, communications, science, education, and the technical transformation of enterprises so that the entire national economy will rest on a foundation of low consumption and high benefits.

The first 5 years in the first decade, that is, the period of the Sixth Five-Year Plan is of crucial importance. During this period, the following jobs should be well attended to:

First, to readjust the international production structure of agriculture. Within agriculture, we should stabilize the area sown to grain crops, control the area of cash crops in order to prevent its blind expansion, and ensure the harmonious development of grain and cash crop output. Within industry, we have to control and reduce the production of those products which do not sell

well and are of poor quality, but requires high energy consumption in production; and actively increase the production of those products which sell well, are of good quality and require less energy consumption, so that the product mix will be better suited to social needs.

Second, to reorganize the enterprises. Improvement of economic results should be the criterion for enterprise reorganization. In reorganizing the enterprises, stress should be laid on streamlining their leading bodies and the disposition of the surplus workers and staff members, so that the management of enterprises will embark on the path of healthy development.

Third, to readjust and reform the enterprises. This means the use of effective measures to reduce the production of goods in excessive supply, to increase the production of goods in short supply, to improve the technology, to reduce consumption and to increase the economic benefits and revenues. Resolute action should be taken to close, suspend, merge or retool a number of enterprises whose production technology is backward, whose consumption of energy and raw materials is high, whose products are excessive to demand and of poor quality; and the enterprises which have for a long time suffered losses, so that the energy and raw materials can be reserved for the advanced enterprises to operate at full capacity. At the same time, in accordance with rational economic principles, the enterprises should be organized on a trade or regional basis for specialization and cooperation and for a high level of comprehensive utilization of resources.

Fourth, technical transformation in selected enterprises. All trades and undertakings should study and work out the plans for technical transformation in their affiliated enterprises and also formulate the corresponding technical policies, with priority being given to the conservation of energy and raw materials, equipment renovation and technical transformation.

Fifth, concentration of the necessary material and financial resources to strengthen the infrastructural projects. While controlling the development of energy-consuming industries and taking vigorous measures for energy conservation, we should develop our energy resources and transportation facilities so that the infrastructure will no longer lag behind the development of the processing industry.

Sixth, the cultivation of talents and the training of personnel. We must strengthen higher education, reform the structure of secondary education and actively develop sparetime education in order to train more talents for the state.

Seventh, to consolidate and improve the economic system. The preliminary reform of this system has already been carried out. We have now to work out an overall plan for the reform and the steps for carrying it out. All preparatory work should be in good order as a precondition for the all-round reform of the system.

If these tasks are selectively accomplished during the Sixth Five-Year Plan, we will be able to greatly improve the economic results, to maintain a certain speed in the development of production, and to pave the way for future

development. During the Seventh Five-Year Plan from 1986 to 1990, we should further strengthen such key projects as agriculture, energy, communications, science and education so that the various sectors of the national economy will develop in proportionate harmony. We should also extensively carry out technical transformation for the enterprises so as to greatly raise their technical level. We should continue the reorganization of enterprises in a rational way, gradually restructure the system of economic management, overcome the main defects in the existing economic system, and set up a new economic system in its embryonic form. If these tasks are accomplished in the 1980's, we will be able to basically set up a rational economic structure, a rational organizational structure for the enterprises, and a rational economic system as the preparations for the developments in the 1990's, by which time, there will be an all-round upsurge in our national economy.

These strategic steps will make even higher demands on all aspects of economic work. In the macroeconomic aspect, the proportionate relationships among all sectors of the national economy and within every sector should be in harmony and rational. In the microeconomic aspect, the quality of products should be greatly improved; their varieties should be increased; and the consumption of energy and raw materials should be greatly reduced. Therefore, we must pluck up our courage, study many things all over again, work steadfastly, and create a new situation in accordance with the strategic plans of the Party Central Committee.

#### Grand Strategy of Development

Guangzhou YANGCHENG WANBAO in Chinese 15 Sep 82 p 2

[Article by Sun Ru [1327 1332]: "A Grand Strategy of Economic and Social Development"]

[Text] In his report to the 12th National Party Congress, Comrade Hu Yaobang laid down a grand strategy for economic and social development which will bring about an all-round socialist economic upsurge in accordance with the requirements of the general task in the new historical period of building our country into a highly civilized and highly democratic socialist country on the basis of the gradual realization of socialist modernization in industry, agriculture, national defense and science and technology.

In his report, he first set this strategic objective of our economic construction; for the two decades between 1981 and the end of this century, while steadily working for more and better economic results, we should quadruple the gross annual value of industrial and agricultural production--from 710 billion yuan in 1980 to 2,800 billion yuan or so in 2000. This is a heartening strategic policy decision, because realization of this objective will mean that, based on a population of 1.2 billion by then, the gross industrial and agricultural output value will work out to an average of more than 2,300 yuan per person. Although the national income on a per-capita basis will be still fairly low, we can still say that, compared with now, the economy and national defense will be much stronger; the modernization of the entire national economy will make important progress; the income of the urban and rural population will be increased several times over; and the people will be comparatively

well-off both materially and culturally. Nevertheless, we must be aware that the realization of this grand strategic objective will be an arduous task, because it will mean that by 2000, the gross value of industrial and agricultural output will have to be increased 3 times over, with an average progressive increase of 7.1. The achievement of such a growth rate is difficult even for many industrially developed countries in the world at present. For our country, however, this objective is entirely practical and by no means the result of wishful thinking.

As shown in our history, we have met with many twists and turns and suffered many setbacks in economic construction, especially during the 10 years of turmoil when construction was seriously disrupted. Because of the superiority of the socialist system, the leadership of the CPC with Marxist-Leninism-Mao Zedong Thought as the guiding ideology, and the efforts of the wise, industrious and courageous Chinese people, the rate of our industrial and agricultural growth has been fairly high all along. From 1950 to 1979, calculated according to the constant prices in 1970, the total industrial and agricultural output value was increased by an average of 9.4 percent each year; from 1953, when the First Five-Year Plan began, to 1979, the average annual increase was still 8.2 percent; and the increase rate in 1980 was again higher than in 1979 by 7.2 percent. This shows that since the founding of New China, the rate of increase in the total industrial and agricultural output value in our country has always been more than 7.1 percent.

Now let us look at the experiences of some foreign country. The Ikeda cabinet of Japan once worked out a plan for doubling the national income in 1960-1970, or for the strategic objective of doubling the national income within the 10 years of the 1960's. According to the statistics compiled by the Economic Planning Agency of Japan, Japan's national income in 1960 was, calculated as existing prices, 13.3 trillion yen; in 1970, it was increased to 59.2 trillion yen. Thus by carrying out the plan in 10 years, the national income was increased by nearly three and a half times. In the 30 years from 1950 to 1980, Japan's national income was increased by an annual average of 8.3 percent. In our country, the national income from 1950 to 1979 was increased at an annual average of 7.3 percent.

From these historical experiences at home and abroad, we can see that the strategic objective of quadrupling the gross industrial and agricultural output value in 20 years is a practical one, although arduous work and great efforts are required.

To realize this grand strategic goal, we must take the following two steps in our strategic planning: in the first decade, aim mainly at laying a solid foundation, accumulating strength and creating the necessary conditions; and in the second, usher in a new period of vigorous economic development. This is an important policy decision made by the Party Central Committee after analyzing the economic situation and its future trend in our country.

In view of the basic conditions of economic development in our country, the two-step arrangement, under which the first 10 years will be the preparatory period, is quite necessary. Before an airplane takes off, for example, it must be fueled first; and then it has to run at full speed along the runway before taking itself off the ground.

Despite the national economic readjustment in the past several years, our industrial and agricultural output has continued to increase. The total industrial and agricultural output value in the country in 1981, according to the constant prices of 1980, was 4.5 percent higher than in 1980, and the national income increased by 3 percent. This achievement is remarkable, but still did not measure up to our requirement, especially because of the low labor productivity, the serious waste of materialized and living labor in either production and circulation, and the poor economic results. The cause is that, as pointed out in the report, "apart from some objective factors not subject to comparison, there are the 'leftist' mistakes of the past, which resulted in blind proliferation of enterprises, an irrational economic structure, defective systems of economic administration and distribution, chaotic operation and management, and backward production techniques." In the first decade, therefore, we have to carry out the readjustment of the economic structure in various fields, the restructuring of the management system, the consolidation, reorganization and integration of enterprises, the necessary technical transformation and the importation of advanced technology in a planned way; and to concentrate our efforts on the improvement of economic results.

At the same time, the report pointed out the need to keep a firm hold on agriculture, energy, transport, education and science as the basic links. These are very important strategic priorities. Agriculture is the foundation of the national economy. Especially in China, with its 1 billion population, if the problems with low labor productivity and low percentage of marketable products in agriculture are not solved, there will be a drag on the modernization of industry, science and culture and national defense. The present shortage of energy and transport is inconsistent with our national economic development, and has even become a serious obstacle to it. The modernization of science and technology is a key link to our four modernizations, while the development of intellectual resources and the training of professional personnel are the guarantee for the rise of the cultural level and the modernization of science and technology.

All these problems should be solved in the first decade as a solid foundation for the economic "takeoff" in the second decade. Thus we can anticipate that our national economic development will not be very fast in the 1980's, while in the 1990's, there will be an all-round upsurge in our national economy.

As long as we can preserve stability and unity, follow the correct line adopted after the Third Plenary Session of the 11th Party Central Committee, persistently and steadfastly observe the various correct economic policies, continue to implement the 10 principles of construction approved by the

Fifth Session of the Fourth National People's Congress and pay particular attention to the solution of the important problems of principle pointed out in the report, we can certainly, under the correct leadership of the Party Central Committee, realize the grand strategic objective set for the economic and social development in our country!

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## NATIONAL POLICY AND ISSUES

### NEED FOR KEY PROJECTS IN CAPITAL CONSTRUCTION STUDIED

Shanghai WENHUI BAO in Chinese 7 Sep 82 p 3

[Article by Zhou Dongfang [0719 2839 2455]: "Why Is The Need for Key Projects Stressed at Present?"]

[Text] Someone has said: "Several years ago, some large key projects had to be stopped. Why do we have to carry out key projects again now?" We all know that for a long time, economic construction in our country has been under the guidance of the "leftist" ideology with "three highs" (high targets, high accumulation and high speed) and "two lows" (low consumption and low-level benefits) as the result. Furthermore, the disproportion in the national economy was serious, with heavy industry elbowing out light industry and accumulation elbowing out consumption. The supply of either capital goods or consumer goods was inadequate for the demand, and the outcome was that production could not be increased and people's living conditions could not be improved. More important still, the capital construction front was over-extended and the projects to be undertaken were too many. Because of the limited manpower and material and financial resources and the shortage of raw material and financial resources and the shortage of raw materials, energy and transport, many projects had to remain suspended indefinitely instead of being turned into productive forces.

There were also many "beard-growing" projects being left unattended, causing serious waste of state funds and delaying the development of the national economy.

In view of the serious disproportion in the national economy, we have, since the Third Plenary Session of the 11th Party Central Committee, implemented the eight-character policy with readjustment as its core. In accordance with the policy of readjustment, restructuring, reorganization and improvement, we have in a planned and systematic way shortened the capital construction front, and particularly reduced the number of large heavy industry products. The allocations for capital construction included in the state budget and the projects included in state plans have been greatly reduced, and some other projects which cannot count on financial support for their continuation are not urgently needed anyway have been resolutely halted so as to ensure that the state funds can be used to meet the most urgent needs. After several years' efforts, the major proportionate relationships in the national economy have been

improved, and in some cases remarkably improved. We then quickly developed the production of consumer goods, and throughout the country, 26 million youths in the urban areas have been given jobs. Despite the difficult financial conditions, we have also markedly improved the people's living conditions. These achievements are inseparable from our resolute measures in reducing the rate of accumulation and curtailing the investment in capital construction. Practice has proved that these measures were entirely necessary and that the reduction of some irrational capital construction projects was well justified.

Then, why is the need for key projects stressed again now? We can find the answer from an analysis of the following aspects:

First, ours is a large country with a population of 1 billion. If we want to carry out the modernization program, and to realize the strategic objective of quadrupling the total industrial and agricultural output value by the end of the century, we must have a large-scale layout for the productive forces and start a number of backbone projects which can play a long-range role in the national economy and in people's livelihood; otherwise, we will be unable to meet the requirements of the four modernizations. To form a rational layout of the productive forces and to embark on large-scale projects are beyond the capability of local resources. This problem can only be solved under the state's overall arrangement. Therefore, concentration of the scattered financial resources in the hands of the state and using these resources on key projects for the country as a whole are an objective requirement of the modernization drive.

Secondly, if we look at the present situation of economic development in our country, we will see that because of the shortage of energy and transport, some enterprises have not been given enough work and the present productive capacity cannot be used to full advantage. Therefore, the urgent need of the moment is to use the state's accumulated funds selectively on exploiting energy resources and speeding up the expansion of the transport and postal and telecommunication services. This is an indispensable condition for the smooth progress of expanded reproduction.

Thirdly, let us look at the situation from the standpoint of relationship between key projects and people's livelihood. Comrade Chen Yun has explicitly pointed out: "First, the people must have sufficient food; second, socialist construction must be carried out." This is the basic principle to guide our economic work. No country can consume all that it produces without carrying out accumulation or construction. The basic aim of socialist production and construction is to constantly cater to the daily growing material and cultural needs of the people. However, the improvement of people's livelihood can only rely on their own efforts in developing production, but not on the state's construction funds which must be spent on some indispensable key projects; otherwise, it will jeopardize the people's fundamental and long-range interests.

Finally, according to Marxist theory, capital construction is a means of not only expanded reproduction but also of simple reproduction. Furthermore, while taking the forms of factories, mines, oil shafts, power generating stations and others of a productive nature, capital construction also takes the forms of large numbers of residential houses and the related public utilities. These nonproductive projects serve to directly improve the people's material and cultural life. Therefore, capital construction is a type of comprehensive economic activity running through all material as well as nonmaterial production departments, and is indispensable in the national economy, especially during the new period of vigorous economic development which is now not very far away.

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## NATIONAL POLICY AND ISSUES

### NOTICE ON PROTECTION OF COMMUNICATION LINES IN GANSU PROVINCE

Lanzhou GANSU RIBAO in Chinese 17 Aug 82 p 1

[Text] of Notice Issued by the People's Government of Gansu Province Concerning the Protection of Communications Lines]

[Text] To protect the communications lines from damage and to ensure the full operation of these lines, notice is hereby given as follows:

1. Communications lines are an important component of the state's communications network, undertaking the task of domestic and international communications for the party, the government, the army and the broad masses. Protection of communications lines is the responsibility of everybody. The broad masses of workers and staff members, peasants, city residents, students, young people and children should all protect these lines and guard against all accidents that may damage them. The militia and the peace-preservation organizations should consider the protection of communications lines as their important responsibility.
2. In the case of blasting for land reclamation, building roads or bridges, digging ditches, felling trees, leveling the ground, or any other engineering work which takes place close to the communications lines, either put up in the air or buried underground, prior concurrence must be obtained from the post and telecommunications departments and reliable measures must be adopted before starting work.
3. If power lines or broadcasting lines, either new or repaired, are put up parallel to, close to, or across the communications lines, the posts and telecommunications departments must be contacted in advance for safety measures to be jointly worked out according to the current relevant regulations before starting work.
4. The dumping of inflammable, combustible or corrosive materials near the communications lines is prohibited. Within 3 meters on either side of the underground communications cables, the building of houses and latrines, the digging of cesspools, the piling of heavy objects, the gathering of stones and earth, and the erection of any structure that may cause damage to the cables are not allowed.

5. Without the concurrence of the posts and telecommunications departments, no unit whatsoever is allowed to add any auxiliary equipment to the existing communications equipment, to put any line on the communications lines, to open the basement door to the underground cables privately, to damage or move the surface equipment of underground cables (such as the unmanned stations and the cable stone signs).

6. Throwing wires, stones and other missiles at the communications lines; shooting at the porcelain insulators or the wires with catapults; or flying kites or firing crackers near the communication lines are all forbidden. Hunting, target shooting, or burning things nearby the communications lines is strictly prohibited.

7. Shaking, knocking or climbing the line posts or stay wires is not allowed. Tethering animals to the line posts or the stay wires is prohibited. Putting loudspeakers, electric lights, antennas, high-tension wires or broadcasting lines on the lines or posts is strictly forbidden.

8. Planting trees within 2 meters on either side of communications lines is not allowed. The branches of trees now on both sides of the communications lines should be 2 meters away horizontally (1.2 meters in cities) and 1.5 meters away vertically from the lines. If the separation is not enough, the line maintenance personnel has the right to trim these branches, and the units and individuals concerned should give them every cooperation.

9. No unit or individual can privately dismantle the communications lines or the communications equipment or materials. The salvage departments cannot without authorization procure the equipment or materials. The units and individuals along the routes should cooperate actively in putting up new lines or repairing old lines, and cannot obstruct the passage of the lines or cables under any excuse.

10. Those who have given outstanding performances in protecting the communications lines will be commended and rewarded, while those who have obstructed the work of the line maintenance personnel or attacked them physically will be severely dealt with. The units or individuals causing damage to the communications lines or equipment should be held economically liable, while the unscrupulous elements found destroying or stealing the lines and equipment of communications will be dealt with according to law.

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## NATIONAL POLICY AND ISSUES

### REGULATIONS ON CONTROL OF PRIVATE HOUSING IN LANZHOU

Lanzhou LANZHOU BAO in Chinese 12 Sep 82 p 8

[Text of Provisional Regulations on the Control of Private Housing in Lanzhou Municipality--dated 20 July 1982, after Approval by the People's Government of Lanzhou Municipality]

[Text] To protect the legitimate rights and interests of the rightful owners of private houses in the urban areas; to strengthen the control over private houses; and to give full play to the proper role of private housing in residential housing, regulations have been specially formulated as follows:

1. Private houses are protected by law against trespass by any unit or individual.
2. The rightful owners should apply to the Lanzhou Municipal Realty Administration Bureau (hereinafter briefly referred to as Municipal Housing Bureau) for registration and then receive their title deeds.
3. Regular periodical checks and adjustments will be conducted on the proprietary rights over private houses. All buyings and sellings, exchanges, transfers as gifts or inheritance, and splitting up of private houses must be examined and approved by the Municipal Housing Bureau.

The procedures for the transfer are as follows:

- 1) Buying and Selling of private houses: According to the "Lanzhou Municipal Regulations on the Buying and Selling of Private Houses," the transactions is to be approved and validated by the Municipal Housing Bureau after measurement, grading and evaluation by the Lanzhou Municipal House Transaction Control Office.
- 2) For the transfer of houses as gifts or through exchange, division of houses, inheritance or splitting up, the parties concerned should present their written applications together with the original title deeds to be examined by the Municipal Housing Bureau before going through the procedures for the change of titles.

4. If the house-owner mortgages his house to another person, both parties should present their written application together with the title deed to the Lanzhou Municipal House Transaction Control Office (hereinafter briefly referred to as Municipal House Transaction Office) for approval and for the mortgage agreement to be validated, and the mortgage tax to be paid. When the mortgage is redemmed, both parties should call at the Municipal House transaction office to complete the procedures for the mortgage to be voided.
5. Renting private houses to others should be encouraged on the basis of voluntary agreement between both parties. The lease, witnessed by the local housing control office, should be binding on both parties. Subject to agreement between both parties, the rental can be 30-50 percent higher than the current standard rentals on public houses of equivalent structures.
6. Private houses, used by the owners or rented to others, should be regularly inspected by the owners. Good maintenance should be provided in order to prolong their service life and to ensure safety.
7. The tenants should protect the houses they live in. They must not cause any damage at will, and must pay the rentals regularly.
8. The tearing down of private houses because of state construction requirements will be carried out in accordance with the relevant stipulations in "Regulations on Tearing Down Houses and Relocation of Households in City Construction in Lanzhou Municipality." If the house owners want to build their own houses in another location, they should apply to Lanzhou Municipal City Planning Administration Bureau (hereinafter briefly referred to as Municipal Planning Bureau) for the allocation of land. After approval, the construction units will pay for the relocation and construction as compensation according to established regulations.
9. The rebuilding, alteration or demolition of houses at the original sites must be endorsed by the neighborhood office and the city construction bureau and approved by the Municipal Planning Bureau before the work can begin. Within 1 month after the building, or tearing down, of the houses, application should be made to the Municipal Housing Bureau for registration and to receive, or surrender, the title deeds.
10. Individuals building their own houses should apply to the Municipal Planning Bureau for construction permits before the work is begun. After the completion of the houses, they should apply for the title deeds, complete the procedures for renting public land, and pay the charges at the Municipal Housing Bureau.
11. Violations of these regulations or the terms of the lease will be dealt with by the Municipal Housing Bureau. Those who use the buying and selling of houses in speculation and profiteering and are driving up the prices of houses or the rentals; those who fail to repair the dangerous buildings and thus cause losses; and those who fail to pay their rental for no reason, privately transfer their tenancy to others or wilfully damage the houses,

will be criticized, educated, fined, required to pay compensation or even be handed over the people's law court according to the seriousness of the case.

12. These regulations become effective from the date of their approval. Should there be any conflict with the relevant regulations of the past, the regulations here should apply.

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## NATIONAL POLICY AND ISSUES

### REGULATIONS FOR CONTROL OF PUBLIC BUILDINGS IN LANZHOU

Lanzhou LANZHOU BAO in Chinese 12 Sep 82 p 8

[Text] of Provisional Regulations on the Control of Public Buildings in Lanzhou Municipality--dated 20 August 1982 after Approval by the People's Government of Lanzhou Municipality]

[Text] To further strengthen the control of buildings in the municipality, the following regulations have been specially formulated:

1. The Lanzhou Municipal Realty Administration Bureau (hereinafter briefly referred to as Municipal Housing Bureau) is a functional organ exercising control over housing under the municipal people's government. Its main task is to conscientiously implement the principles and policies of the higher authorities concerning housing administration, and it is responsible for the control of all public buildings in the municipality; for the unified repairs and maintenance of these buildings, and for the rational regulation of their use in order to make life more convenient for the people and to promote the four modernizations.
2. In accordance with state policies on the unified control of all public buildings in the city, the Municipal Housing Bureau will exercise its unified control in a planned and systemic way over all the dormitories of elementary and secondary schools, all the office buildings of the government organs and public agencies, and the buildings used by the culture and education, public health and commercial units as well as the service trade in their business operation. All the residential houses of the government offices and public agencies will also be gradually brought under unified control. Once they are under unified control, these houses will not be controlled separately by the units again; those houses which have not yet been brought under unified control should accept the guidance and supervision of the Municipal Housing Bureau in their business operation.
3. The scope of direct control over the houses:
  - 1) The existing directly-controlled realty and the buildings newly constructed with state or local investment;

- 2) The realties vacated by government organs, and the army or other units as a result of their transfer, merging, closing, relocation, or confiscation by the law courts.
- 3) The unattended public or collective realties: those realties whose owners have died without leaving beneficiaries; and those over which their owners have requested the bureau to take control on their behalf.
4. All units and individuals desiring to use the public buildings directly controlled by the Municipal Housing Bureau should submit their applications to the bureau through the proper channels. Their applications must be approved and the leases must be executed before they can move in. No unit or individual can forcibly occupy any public house, privately rent them to others, exchange them or alter the nature of their use. Those who have forcibly occupied public houses and yet refuse to return them despite repeated persuasions, will be dealt with according to law by the law court. The Municipal Housing Bureau has also the authority to withdraw the vacant houses to be redistributed.
5. All units and individuals occupying public houses on a rental basis should abide by the housing regulations and protect state property. They are not allowed to erect any structure in the premises or in the front- or back-yard in violation of the regulations. Any structure already erected must be demolished.
6. Anyone found privately selling, encroaching on, tearing down or intentionally destroying public houses or equipment must be held responsible for the compensation. In serious cases, they will be handed over to the judicial organs to be dealt with according to law.
7. If the units using public buildings on a rental basis should expand these buildings to meet the requirements of production or business operation, they must have the prior concurrence of the Municipal Housing Bureau and the approval of the Lanzhou Municipal City Planning Administration Bureau before starting work. The expenditures and materials should be taken care of by the units themselves. For the convenience of control and maintenance, the proprietary rights should remain with the Municipal Housing Bureau, while the units can continue to occupy them on a rental basis. If the repairs, expansion or alterations are financed by the unit, and the rents should be reduced for a certain period, the matter should be discussed with the Municipal Housing Bureau and finalized in the form of signed contracts.
8. The rentals to be paid by the units using public buildings are to be collected by the bank, while the rentals to be paid by individuals can be deducted from their wages by their units, or be collected by the personnel of the Municipal Housing Bureau. No unit or individual can refuse to pay rental on any pretext.
9. The units in control of their own buildings should set up special organs or assign special personnel for the control, and accept the guidance of the

Municipal Housing Bureau. They should also submit regular reports on the buildings and take good care of their administration and maintenance.

10. If buildings are entrusted to the care of the Municipal Housing Bureau and their original owners, or their legal successors, apply for them to be returned, documentary evidence of their ownership should be produced for verification. The buildings will be returned if the evidence is found satisfactory and the accounts have been settled.

11. The Municipal Housing Bureau and the units in control of their own buildings should strengthen the maintenance and upkeep of the houses, and ensure their normal use and safety. If any building is no longer worth repairing and should be demolished and replaced according to city regulations, they should be included in the list of capital construction projects.

12. The maintenance and repairs of public buildings should conform to the stipulated standard so that the quality of the work can be ensured. If the users of the buildings want the quality of this work to be above the required standard, they can finance this work themselves, subject to the concurrence of the Municipal Housing Bureau. However, they cannot demand any compensation by the deduction of the rental. The proprietary rights still belong to the Municipal Housing Bureau.

13. If any public building, being used by some unit free of charge, needs expansion, rebuilding, or demolition because it is no longer worth repairing, the unit should report to and receive approval from the Municipal Housing Bureau before proceeding with the construction or demolition. The old materials will be recovered by the bureau which will also retain the proprietary rights over the new buildings.

14. If the buildings under the control of the Municipal Housing Bureau have to be demolished because of the requisition of land by the government, the unit which will take over the land should arrange for the relocation of the occupants and pay the demolition and relocation expenses.

15. Administration of housing should take the mass line and be carried out with the method of combination of professional and mass control. In the neighborhood offices and residents committees, mass control organization should be set up. As a matter of principle, an area control committee should be formed for each group of buildings or each residents committee for the joint control, maintenance and use of state buildings.

16. The system of economic responsibility should be set up among the basic-level housing control offices under the Municipal Housing Bureau so as to fully arouse the enthusiasm of the administration and maintenance personnel for the houses to be carefully controlled, maintained and serviced as a contribution to the realization of the four modernizations.

17. The workers and staff members of the housing administration departments should set good personal examples by handling matters impartially. They must

conscientiously implement the principles and policies for housing administration and serve the people wholeheartedly. The individuals and units giving outstanding performances should be commended and rewarded, while those who neglect their duties and have brought about economic losses, or violated these regulations should be criticized or disciplined according to the seriousness of their mistakes.

18. Those who have deliberately obstructed the implementation of the state's housing administration policies or interfered with the performance of duty by the housing administration and maintenance personnel; and those who are deliberately provocative and have resorted to physical violence, should be severely dealt with, according to law, if necessary.

19. These regulations are effective from the date of their approval, and the relevant articles in the "Provisional Regulations on Realty Administration in Lanzhou Municipality" are no longer valid. The Municipal Housing Bureau can work out the detailed regulations for implementation on the basis of the regulations here.

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## ECONOMIC PLANNING

### INVESTIGATIVE REPORT ON RESOURCES OF HAINAN ISLAND

Beijing JINGJI KEXUE in Chinese No 3 1982 pp 37-42

[Article by Liang Wensen [2833 2429 2773], Shen Liren [3088 4539 0086] and Tian Jianghai [3944 3068 3189] of Economics Institute of Chinese Academy of Social Sciences: "Promote Development by Means of Open Door an Economic Investigation of Hainan Island"]

[Text] (I) The Second Treasure Island of the Motherland Eagerly Awaiting Development

The history and the present situation of Hainan Island can be summed up as four "very bigs."

First, "very big" advantages. Hainan Island is our country's second largest island, second only to Taiwan Province. The total area of the island is 34,000 square kilometers, only slight less than that of Taiwan, which is 36,000 square kilometers. Its population (based on 1980 figures; same throughout, unless otherwise stated) is 5.53 million, approximately one third the 17.14 million on Taiwan (1978). Its geographical and natural conditions as well as its resources are similar to those of Taiwan. The position it occupies in our great motherland is the same as that of Hawaii in the United States and Sicily in Italy. Its scale is similar to that of Kyushu in Japan and no smaller than some famous island countries in the world. Its area is half that of Sri Lanka, but double that of Cyprus.

The major part of this island lies in the subtropical zone, and its southern part is in the tropic zone. It is therefore a suitable base for subtropical and tropical crops in our country; this base is much larger than the Xishuangbanna area in Yunnan Province. Its climate is mild (the annual average being 22°C) with abundant sunlight (more than 2,000 hours) and rainfall (between 1,500 and 2,000 millimeters in many areas throughout the year). Among its main products are rubber, sugarcane, coconuts, pepper, lemongrass, sisal hemp, coffee, cocoa, tea, lichee, bananas, pineapples, cashews, oil palm, and betel palm. Because all four seasons are like spring here, there are three grain crops a year, along with luxuriant forests and pastures. The species of animals and plants are numerous. The land is criss-crossed with rivers, and the reserve of water energy is close to 1 million kw. The coastline is 1,369 kilometers long and affords good breeding places for fish and shrimp. It is also convenient for navigation. There are many tourist spots; in the southern part there is a winter swimming resort.

It is very close to Hong Kong and Macao and not far from Southeast Asia. This is an advantage not to be found in any other part of the country or [Guangdong] province. Furthermore, nearly 30 different mineral deposits have been verified and are ready for exploitation, the main ones being iron, titanium, copper, aluminum, phosphorus, lignite, quartz, graphite, crystal, and procelain clay. The rprospects for oil extraction from both the sea and the island are quite promising.

Since the founding of the People's Republic, a fairly good foundation has been laid for industrial and agricultural production. Subtropical crops have continued to increase. There are now 4.03 million mu of these crops, including 3.42 million mu of rubber, with an annual output of 70,000-80,000 tons, equivalent to 70 percent of the total national output. In addition to the Shilufu iron mine and the Yinggehai salt fields, which are run by the state, there are 1,215 local industrial enterprises, engaging in sugar refining, forestry, light industry, textile industry, building materials industry, machinery industry, chemical industry, and so forth, with a total installed generating capacity of 216,000 kw. More than 14,000 kilometers of highways have been constructed, and more than 90 percent of the communes and production brigades are now accessible by automobile. There are also more than 60 harbors of various sizes.

Second, "very big" potential. For various reasons, the economic development of Hainan Island has been fairly slow, and the present level of development is low. In 1979, the total value of agricultural output in the whole administrative district was 885 million yuan (or 525 million yuan, if that of state farms is excluded), or less than one tenth the provincial output value; its total value of industrial output was 646 million yuan, or approximately 3 percent of the provincial output value. In recent years, the total value of procurements for foreign trade was 50-80 million yuan, only one third of the value of output in Nanhai County. This shows the great potential waiting to be tapped.

The present abundant resources are far from being fully utilized. Out of some 50,000 mu of land on the island, 42,390 mu are arable; so far, however, only 24,900 mu have been used for planting (including the planting of subtropical crops and trees), and one third of the arable land is deserted. There are many undeveloped mountains, mountain slopes, and land--particularly in the south, where there is plenty of sunlight and little trouble from typhoons. Furthermore, not many rubber trees have been planted in these places. (In the past, this was undertaken solely by state farms.) According to investigations conducted in 1956, the area of natural forests in the whole administrative district totaled 12.96 million mu; now, only 4.96 million mu are left. Even with the addition of artificial forests, the total is only 7.63 million mu. The proportion of forest cover is only 21.5 percent, even though the rubber plantation area has been included. Along the coast, 380 mu of water surface can be used for breeding purposes, but only 12,400 mu are being used. Of the 60 percent of usable inland water surface, only 15 percent has been exploited for waterpower. The mineral deposits of titanium, aluminum, and coal are still undeveloped,

while machinery and sugar-refining equipment are not operating at full capacity. The products processed from agricultural sideline products are mostly primary products, and there is no comprehensive utilization.

The per unit output of agricultural crops is very low. Grain output per mu is approximately 30 jin (calculated according to the sown areas); and the output of rubber per mu is only half that in the Southeast Asian countries. One of the causes of the low output is insufficient application of organic fertilizers, which is less than 10 dan for every mu of paddy rice. Even less chemical fertilizer is applied, being approximately 20 jin for each mu of paddy rice. The irrigated area amounts to 59 percent of the farmland, and the area guaranteeing stable yields during drought is only 23 percent of it--the lowest in the province. Crop growth is easily affected by droughts or typhoons. The yield of pond fish is 120 jin per mu, and that of reservoir fish is less than 10 jin per mu, the lowest in the province. Obviously, low labor productivity is another cause for the slow economic development on the island. If production conditions and business management can be gradually improved, there will be not only rapid agricultural growth but also a large-scale increase in the diversified economy of forestry, animal husbandry, sideline production, and fishery--which accounts for one fourth of the total value of agricultural output. There will also be a continued increase in raw materials for industry.

Third, "very big" difficulties. The population growth is fairly rapid. In the 1949-1979 period, the progressive annual increase was 2.7 percent (in 1979, the natural growth rate was 2.1 percent). The standard of living is fairly low. The clothing and the living accommodations for more than 700,000 compatriots of the Li and Miao nationalities have remained basically unchanged for a long time. In 1979, the per capita income from distribution of the agricultural population was 65 yuan, only 1.1 yuan more than in 1957, which was then 63.9 yuan. In 1980, it was raised to 70 yuan--16 yuan below the national average and 35 yuan below the provincial average. The supply of commodities is not sufficient, and prices are higher than in any other part of the province.

For production and construction, there is a lack of funds, technology, and managerial skill. Annual revenues for the entire administrative district are approximately 130 million yuan (the 150-200 million yuan handed in by the state-run industrial and agricultural enterprises excluded), and after the day-to-day expenses are paid for, there is not much left for investment. The collective economy is even weaker. In 1979, retained earnings for the communes and production brigades amounted to 27.83 million yuan. In the same year, they owed the bank agricultural loans totaling 69.58 million yuan (100 yuan for each household), and fishery loans totaling 24.69 million yuan (610 yuan for each household). There is not a single university in the whole district, and the number of secondary vocational schools and technical schools is also small. Only 10 persons had qualifications equivalent to, or above, those of an assistant professor or a senior engineer.

The infrastructure is weak, and energy resources are inadequate. There is no fine-quality coal (the annual output of locally produced lignite being only some 20,000 tons), and the power supply system cannot be connected to that of the mainland. Except for those used for transporting salt and iron in the southern and western parts of the island, there are no railways--not even in the capital, Haikou Municipality. Deepwater harbors are scarce. Communications with Hong Kong and Macao have to be relayed in Guangzhou. Foreigners have called it a "mysterious island" because of its being closed to the outside world.

Fourth, "very big" hopes. Despite its present difficulties, it has a very promising future. Since the Third Plenary Session of the 11th Party Central Committee, people have emancipated their minds and corrected the wrong ideas that construction cannot be carried out along the frontline of national defense and that the island has to be closed by blockading the sea. They now believe that exploiting Hainan Island to develop production and improve the people's livelihood can only result in strengthening our frontier defenses instead of weakening them. The Party Central Committee and the provincial party committee have always attached great importance to the exploitation and development of Hainan Island. They have laid down correct policies and aroused the enthusiasm of the broad masses of cadres and people. Now, everyone has the confidence and determination to change the island's appearance. In recent years, great progress has been made in strengthening national unity, settling disputes between state farms and communes, and readjusting the agricultural structure.

Practice has proved that as long as we rely on correct policies and on science, and observe economic laws and natural laws, we can quickly turn poverty into prosperity. Dongfang County was well known for its poverty in the past. In 1981, the system of responsibility for production was introduced and the agricultural structure was readjusted. Compared with the previous year, the yield of the early grain crops increased by 97 percent and that of peanuts increased by 42 percent. The yield of sugarcane reached 50,000 tons (the highest annual output ever attained [previously] had been 13,000 tons), and 3,900 mu were field-planted for rubber (more than the sum total since liberation). Thus the day has dawned in "Dongfang" [the east] and there will soon be brightness all over the island.

#### (II) "Promoting Development by Means of the Open Door" Is the Only Way To Accelerate Construction

Since 1980, the central authorities and the Guangdong Provincial Party Committee have laid down the policy of "promoting development by means of the open door," and have delegated fairly great authority to Hainan Island so that it can accelerate its own construction. According to this policy, there should be several questions to be discussed in the light of economic theory and policy.

First, the question of the goal of exploitation and development.

The so-called "promoting development by means of the open door" means breaking away from the practice of closing the country to international intercourse, and adopting a specific policy that can help to absorb foreign funds and advanced technology, as well as to encourage investment and exports. In other words, under the state's unified policy and the province's unified plan, we should boldly absorb foreign funds and overseas Chinese funds, and set out to develop foreign trade and tourism so as to raise huge funds for the construction of Hainan Island and to speed up the exploitation of natural resources, the development of industrial and agricultural production, and the improvement of the people's livelihood. However, there should be a goal for this exploitation and development. Generally, the goal is, on the basis of developing production, gradually to satisfy the people's daily increasing material and cultural needs. The indices now frequently used are based on the people's average gross national product. The gross national product of Hainan Island has not been figured out. According to an estimate based on the total value of industrial and agricultural output, in the past several years it has been roughly a little more than 300 yuan, or \$200 slightly lower than the national average. To speed up the construction of Hainan Island, we should strive for a rate of development that is higher than in the past and that can catch up with the whole province and the whole country, so that by the end of the century, the level of construction will be higher than the national level. At the same time, we should achieve a higher level of both material and cultural civilization, such as a high level in communications and transportation, in supplies of commodities, in culture, in education, in public health, and so forth. It will be difficult for us to succeed by relying on ordinary methods. Therefore, we must adopt the special policy of opening our doors to the outside world.

In addition to what has been pointed out above, the open door policy has other specific multigoals. For example, what will be the scale of the absorption of foreign funds? What will be the expected level of imported technology? To what extent will job opportunities be increased? These questions are of greater special significance here than in other places. Therefore, we cannot wait for problems to occur and then deal with them as we go along; we must have a complete plan for everything, including production, circulation and consumption as well as spiritual development. Without such a plan, we will not be able to proceed with comprehensive development or take full advantage of Hainan Island's strong points. In this respect, the district party committee has already envisioned a broad outline of the plan. The distribution of arable land will generally be as follows: Half for forestry and half for farm crops; among the farm crops, one third will be grain and two thirds will be cash crops; among the cash crops, rubber will be more than half and the rest will be sugarcane and other crops. Some tentative plans have also been worked out for animal husbandry, aquatic products, and breeding on the beaches--which should maintain an appropriate ratio to agriculture. We would suggest that similar plans be worked out for industry, communications, municipal construction, science, education, culture, public health, and people's living conditions.

What about the scale of investment, which has a decisive effect on the rate of development of production and construction? We have in mind the experience of Shenzhen, which has tentatively decided to absorb approximately 10 billion Hong Kong dollars in foreign funds within 2 years. Hainan Island is so large and so rich in natural resources. Although its development cannot be as rapid as that of Shenzhen in the immediate future, we believe that if we take a long-range view of the situation, [Hainan] also has great attraction for people from far and near and can eventually surpass Shenzhen in scope, level, and substance.

Second, the strategic question of developing foreign trade.

We must stress strategy in economic development. Under the principle of persevering in self-reliance while striving for foreign aid as a supplement, economic exchanges with foreign countries, especially foreign trade, are an important component of the strategy of economic development. Foreign trade is even more important to Hainan Island when it adopts the special policy of opening its doors to the outside world. The foreign funds absorbed and utilized have to be repaid in foreign exchange. Therefore, we must finally rely on foreign trade. Some Third World countries with small areas are developing their economy under the slogan of "using foreign trade to build the country." We do not take the same view for our country as a whole; for Hainan Island, however, "using foreign trade to build the island" is quite practical. The present volume of procurement for foreign trade is only 5 percent of the total value of agricultural output, less than one half of the provincial volume (which is more than 10 percent). In the future, this volume should be raised by a wide margin, up to 30 percent or even more than 50 percent. In exploiting and developing Hainan Island, therefore, we must attach particular importance to the strategy of developing foreign trade. In formulating a strategy for foreign trade and for attracting foreign funds, we must, on the one hand, consider such local factors as the leading role of agriculture, the weakness of industry, the backwardness of technology, the lack of funds, and the fast-growing population, while on the other hand we must think of its special position in the country and of the division of work. While developing agriculture to meet local needs, perhaps we may first arrange for the large-scale exportation of agricultural sideline products and their primary processed products, other processed products, and labor-intensive industrial products (such as garments, electronic equipment, and arts and crafts) in exchange for locally needed means of production and consumer goods. We may also actively develop production of our special local products, and then gradually improve them. We should, in a planned way, produce more sophisticated light industrial goods, partly for export and partly as a substitute for the imported articles being used in the province and the country. To be specific, subtropical crops, aquatic products, and animal products can be the key items to be developed, and we can export to Hong Kong, Macao, and other places such products as pigs, cows, fowl (including chickens, ducks, and geese), fish, shrimp, melons, fruits, vegetables, and other nonstaple foodstuffs in order to expand our foreign market. At the same time, we have to develop rubber, sugarcane, and other cash crops and their finished products for the home

market as a substitute for a portion of the imported articles. After a certain time, we should continue to raise the ratio of industrial and mineral products to the total export value. In the course of development, we should make every effort to produce a number of "highly competitive" products, such as oil palm and cashew nuts, whose volume of export should exceed 3,000-5,000 dollars in value. These should be the main purposes of the absorption of foreign funds and the importation of technology. These measures will enable us not only to develop production, provide more job opportunities, and increase our revenue, but also to enjoy greater advantages in imports and exports so that we may increase our foreign exchange earnings and our accumulation funds and finally strengthen the foundation of our own heavy industry.

In developing foreign trade, one of the urgent requirements is to improve the economic results and to increase our competitive power. A Japanese delegation has come to this island to investigate and has stated that since our per unit yield of rubber and sugarcane is so low, we are in no position to compete with other countries. Last year, some departments imported pepper, which adversely affected the sales of similar local products. This was only because the prices of imported articles were lower than our domestic prices. Our beef cattle, chickens, ducks, and pineapples cannot sell for good prices because of their inferiority. We feel that we should apply Ricardo's theory of comparative costs and accordingly improve our foreign trade and our products for export; otherwise it will be difficult for us to maintain our foothold in the international market, and we may sustain undue losses or even "heavy losses."

Third, the question of economic structure in opening the island to international intercourse.

For Hainan Island, we should learn from the methods used in the special economic zones. However, Hainan Island is different from Shenzhen or Zhuhai. A local comrade said that the advantage enjoyed by Shenzhen and Zhuhai is their proximity to Hong Kong and Macao. However, they have no natural resources, and the only thing they have to offer is land for lease. In addition to the development of processing of imported materials and assembly of imported parts, the purpose of attracting foreign funds to Hainan Island is to exploit the natural resources, to setup areas for various subtropical crops, and to form processing enterprises as well as other related institutions which are, in depth and breadth, different from those in Shenzhen and Zhuhai. Therefore, along with the progress of development, the original economic structure will gradually be replaced by a new one.

The present economic structure on Hainan Island, as of 1979, is generally as follows: 58 percent for output value of agriculture and 42 percent for that of industry, a ratio of approximately 6:4. In agriculture, (leaving out the state farms) pure agriculture, or agriculture in the narrow sense, accounts for 74 percent; forestry, 2 percent; animal husbandry, 10 percent; sideline production, 10 percent; and fishery, 4 percent. In pure agriculture,

grain crops account for 69 percent; subtropical cash crops, 18 percent; and others, 13 percent. In total industrial output, heavy industry accounts for 40 percent and light industry for 60 percent; large and medium-size enterprises account for 22 percent and small enterprises for 78 percent. Classified by the different trades, the metallurgy, chemistry, and machinery trades each account for 12 percent of total industrial output value, all being more than 80 million yuan; 35 percent, or 224 million yuan, by the food industry (in which, home-produced sugar accounts for one third). Its main feature is that the commodity economy is still not well developed, while the characteristics of a natural economy are even more dominant in the minority nationality areas. In industry, small-scale light industry occupies the leading position, and the major portion of it uses agricultural sideline products for raw materials.

The open-door policy will naturally hasten the disintegration of the semi-natural economy and change it into a commodity economy. Furthermore, this new economic structure will be different from that of ordinary local economy, because it will be oriented to the international market and will carry out large-scale imports and exports. It can be called a type of open-door economic structure. This structure can be reflected inside agriculture, between agriculture and industry, and inside industry. In agriculture, the island now has to rely on the transfer of 450 billion jin of grain from outside every year simply because output per unit is too low. If, in the future, chemical fertilizers instead of grain are brought in, and in larger quantities, the island may become more than self-sufficient in grain. On this basis, the cash crops and economic diversification intended mainly for exports in the future should be quickly developed. Continued efforts should be made to raise the ratio of these products to the volume of exports so that grain can enjoy an overwhelming superiority. Finally, [there should be] a system of agricultural production characterized by an all-round development of forestry, animal husbandry, sideline production, and fishery, with subtropical crops (including special economic forests, edible oil from woody plants, rare species of trees, fruits, and so forth) as the key products, and by a high percentage of marketable goods. The relationship between agriculture and industry at present is evidenced mainly in the primary processing of some agricultural sideline products and the manufacture of a small amount of the means of production for agriculture. In future, the continued increase in the supply of raw materials from agricultural sideline products will also continue to increase this volume of processing; along with the improvement in processing technology, secondary processing and tertiary processing will gradually appear. Certain products now being transferred out in the form of raw materials or primary processed products will in future go through intensive processing locally and then be transferred out in the form of final products. In addition, it is necessary for industry to supply more means of production for agriculture, with greater varieties and better quality. At the same time, there should be great developments in local mining, in the manufacture of consumer goods, and particularly in the processing of imported materials, the assembly of imported parts, and the production of labor-intensive products. After we import advanced equipment and assimilate the imported technology, products will become more diversified. Finally, with an industrial system based on the island, oriented to the domestic and foreign markets, and mainly undertaking the processing of subtropical crops and mineral products, the processing of imported materials and the assembly of imported parts will take shape.

In reorganizing the economic structure, we must form and preserve a logical ecological equilibrium and the three-dimensional pattern of agriculture so that it will be consistent with the economic structure. For example, if planting rubber causes damage to the shrubs and grass cover, it means the destruction instead of construction of forests. Some people have suggested combining rubber planting and animal husbandry. This suggestion deserves careful consideration. In making use of foreign funds, we must also guard against the importation of pollution or any kind of predatory exploitation. For all projects, we should conduct research and comparisons in feasibility in economy and ecology and then evaluate them before making a decision.

Finally, the question of focus and steps in exploitation and development.

What should be attended to right now in the exploitation and development of Hainan Island? The provincial party committee has pointed out the need to stress communications and forestry. This is a correct idea. We must establish direct links with Hong Kong and Macao (to be extended later to Japan and Southeast Asia) in navigation, shipping, and communications in order to facilitate trade negotiations and the promotion of foreign trade and tourism; otherwise, foreign merchants may have misgivings because of the inconvenience. There must be forests before there can be water, grain, rubber, sugar, electricity, or anything else. This shows that the backwardness of our infrastructure is one of the obstacles to the attraction of foreign funds. This problem must be solved before the basic conditions can be created for exploitation and development. Energy, again, is another weak link. We feel that, aside from prospecting for petroleum and developing waterpower, we should make full use of lignite in place of timber for fuel and produce more building materials. An underwater cable should be laid under Qiongzhou Strait to be connected to the provincial power grid, while the regulation of thermopower and hydropower, the development of marsh gas, and the utilization of solar energy should also be considered. In using foreign funds, we must consider our ability to repay them, to produce the supporting equipment, and to assimilate the technology. Intellectual investment is the urgent need of the moment. It is suggested that while preparations are underway for the building of Hainan University, we should regard highly the development of secondary vocation and professional education. Incentives should be offered to recruit technicians from the mainland to stay here on a long-term or short-term basis. Cadres here should have peace of mind about remaining, so that they can devote their efforts to the construction of the treasure island instead of laboring under the feeling that they have been "exiled." In agriculture, some comrades have suggested the use of sugarcane as a means to "start the fortune." This suggestion should be acted on. After all, we should pay attention to the key points, lay a good foundation, and proceed with our work in an orderly way, and then a change in Hainan Island's appearance can be expected in the not too distant future.

(III) Correctly Handling the Relationship Between Inside and Outside, as Well as Vertical and Horizontal Relationships

The exploitation and construction of Hainan Island cannot be undertaken in isolation, because it involves many relationships which must be handled correctly.

In exploiting and constructing Hainan Island, we should basically rely on the use of foreign funds and imported technology and set up joint ventures. Lenin pointed out: In a backward small-peasant economy, "the development of capitalism under the supervision and regulation of a proletarian state (and this is what the so-called 'national' capitalism means) is not only useful but also necessary (of course, only to a certain extent)." ("Selected Works of Lenin," Vol 5, p 573) This is not only because of the problem of the huge amounts of funds and equipment required for exploitation and construction, which cannot be solved within a short period, but also, more important still, because of our low labor productivity in industry and agriculture, which makes it impossible for more funds to be accumulated from internal sources. According to a preliminary estimate a minimum investment of 5-10 billion yuan will be required to bring exploitation and construction up to a certain scale and level. Even if the total amount of profits which the state-run enterprises have to turn in to the state is retained for local use, it will take 20-30 years before a sufficient amount can be accumulated. It has to be this way simply because, after all, our production level is too low. In 1979, there was an agricultural population of 3,777,700 in this administrative district (not including the people on state farms; same [exclusion] hereafter), with an average gross agricultural output value of only 235 yuan and net output value of not quite 150 yuan per capita. There was also a nonagricultural population of some 400,000 with an average gross industrial output value of approximately 1,500 yuan per capita--far below the national average of approximately 2,500 yuan. Therefore, large-scale accumulation is impossible. That is why, while we are using foreign funds and imported technology, we should strive to raise the level of production techniques and business management, and pay attention to intellectual development and investment in manpower. It is particularly necessary that our cadres at various levels should exert their efforts in learning about economic construction and then gradually create the necessary internal conditions so that external causes can operate more effectively through the internal causes. In this sense, our reliance on outside assistance is not one-sided reliance, but is built on a foundation of self-reliance.

Opening the door to the outside world and being flexible at home are in harmony, as far as the delegation of power to the lower levels is concerned. The so-called flexible measures at home mean readjusting existing policies and regulations that restrict productive forces, while the so-called delegation of power to lower levels means dividing up power that is overconcentrated or that should not be concentrated. Only thus can our foreign and domestic policies and measures be well coordinated, and only thus can the initiative and enthusiasm of the localities for economic activities abroad can be given full play. The subordination of flexible measures at home and the delegation of power to lower levels should be stricter on Hainan Island than in other ordinary areas.

The comrades of the administrative district feel that although the policy decisions of the central authorities and the provincial party committee are very good, there are difficulties in their implementation simply because the present system is not suitable for the open-door policy. According to them, unless the existing system is changed so that the mind can be truly emancipated, the flexible measures and the delegation of power will "end

like a bubble after a lot of excitement." The so-called system has a very broad meaning, but essentially it means the correct handling of relationships between inside and outside, between above and below, and between left and right. To accomplish this task, the following three points should be noted:

1) Readjust the economic relationship between the administrative district, the state, and the province. It is felt that Hainan Island's poverty should be attributed not only to disruption by the leftist line, but also to the fact that the central and provincial authorities have taken too much from and given too little to this island. Its "treasures," such as salt and iron, are managed by the state and the profits have to be handed over to the state; huge tracts of land are being used by the state farms which produce most of the rubber and tea on the island; the harbors are controlled by the central authorities; and even the highway maintenance charges have to be collected by the provincial authorities. Yet the food rations for these units and their personnel have to come out of the local share; nonstaple foodstuffs are all supplied locally; and part of the expenditures for culture, education, and public health have to be borne by the local authorities. Furthermore, procurements for foreign trade have increased the volume of currency in circulation and taken away the commodities, causing an increase in purchasing power followed by currency inflation and skyrocketing prices. In recent years it has been stipulated that 7-15 percent of the profits from the iron mines and state farms are to be allotted to the local authorities in consideration of the interests of both higher and lower authorities. But this allotment is still insufficient to meet the requirements of the open-door policy and of the exploitation and construction program. As a result, infrastructure projects, the construction and repair of scenic spots, and joint ventures are all handicapped by a lack of funds. The way to solve this problem is to replace the long-standing system of unified handling of all revenues by the state with a new system whereby, after financial and material resources are turned in to the state, the major portion of the surplus will be retained by the locality so that it will have the resources to undertake various projects in coordination with the open-door policy. "Taking must be preceded by giving"; so goes a Chinese proverb. After speeding up the progress of exploitation and construction, localities will be able to make even greater contributions to the state and the province.

2) Appropriately expand the decision-making power of the administrative district in its economic exchanges with foreign countries. Such power has been highly concentrated all along, thus causing contradictions between the central and the local authorities. For Hainan Island, the provincial party committee has laid down 10 points in a document embodying the special open-door policy. This is a remarkable improvement; however, because of their inconsistency with the existing system, these points have not been recognized by the various departments. The comrades of the administrative district hold that in order to implement the open-door policy effectively, power for the locality in the performance of the following functions should be appropriately expanded, under the principle of united action in dealing with other countries: Planning for imports and exports; undertaking economic cooperation projects; utilization of the shares of trade and nontrade foreign exchange earnings; examination and approval of entry permits; and communications with other

countries. Since Hainan Island is farther from Hong Kong and Macao than Shenzhen and Zhuhai are, and since it is "not a special economic zone, but superior to a special zone," some preferential treatment in the form of "three lows" (low land rent, low wages, and low tax rates) and "one high" (high rate of profit-sharing) is now under consideration. This treatment is still awaiting documentary confirmation and the necessary legislation. In coordination with this, some changes should be made in organizational forms. For example, all specialized foreign trade companies should be converted into unified general local import and export companies and, under a unified plan, these local companies should be independently managed by the local authorities, with guaranteed revenue quotas for the state. At the same time, the establishment of industry-foreign trade and agriculture-foreign trade companies should be permitted so as to extensively utilize the resources in various fields. Thereby, all activities in the country will be coordinated like pieces in a chess game, and the initiative of the localities will be given full play. This will help to place exploitation and construction on a realistic basis and bring greater vitality to our economic activities abroad.

3) Strengthen cooperation under the unified leadership of the administrative district. On Hainan Island at present there are, in addition to the administrative district (including the autonomous prefecture), eight large enterprises directly under the central government. There are many vertical relationships but few horizontal relationships. In fact, the district cannot become a complete economic entity, and its resources are dispersed in dealing with other countries. This is disadvantageous to the implementation of the special open-door policy. Some comrades have suggested that all these enterprises should be placed under the leadership of the administrative district. Since all these enterprises have their own source of revenues and material supplies, a change of affiliation might cut these sources and affect production, construction, and business management. In the document of the provincial party committee it is stipulated that, under the leadership of the district party committee, Hainan economic leading groups should be established for all departments, with the district party committee secretary in direct charge. This is a practical plan. However, its role in coordination and overall planning must be given full play; otherwise, its authority will be only nominal. At the same time, we must have simpler and better administration and higher efficiency, further strengthen the leadership of the administrative district by including capable cadres among its personnel, and grant certain preferential economic treatment so that it will be better qualified for the new special task.

While opening the island to the outside world, internal cooperation should also be extensively promoted. Under the principle of voluntary participation and mutual benefit, support for Hainan Island can be enlisted from those provinces and municipalities that enjoy better economic and technological conditions. For those cooperative projects that do not require heavy investments and for which the equipment can be produced domestically, such as the improvement of irrigation as a means of raising sugarcane output and investment in the building of sugar refineries and papermills, it may be possible to achieve economic integration in various forms through cooperation among different regions, instead of relying solely on foreign funds. Many coastal provinces and municipalities may be particularly interested in large-scale development

of the processing of rubber and timber (including the use of the leftover bits and pieces for making fiberboard). Hainan Island itself will have difficulty supplying the equipment, technical know-how, and skilled personnel, and will need help through cooperation. In these respects, the situation here is the same as in Inner Mongolia, Ningxia, and the other autonomous regions. More propaganda and organizational work is required to produce the desired results.

(Manuscript of this article received on 9 March 1982)

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CSO: 4006/036

## ECONOMIC MANAGEMENT

### STRUGGLE AGAINST ECONOMIC CRIMES PERMITS NO RELAXATION

Shanghai JIEFANG RIBAO in Chinese 7 Oct 82 p 1

[Article by Commentator: "We Must Not Relax Our Struggle Against Serious Economic and Other Crimes:"]

[Text] Recently, the people's courts in various districts and counties of Shanghai Municipality sentenced such economic criminals as Liu Dongliang [0491 2767 2733] to fixed prison terms. Like termites undermining the edifice of socialism, their criminal activities have seriously damaged China's economic construction, upset social stability, debased the standards of social conduct and corrupted people's minds. If we are to proceed with the establishment of socialist material and spiritual civilization and to achieve new gains in our projects of socialist modernization, we must continue to wage a resolute struggle against serious criminal activities in the economic and other fields.

While pointing to the serious criminal activities in the economic, political, ideological and cultural fields, Comrade Hu Yaobang said in a serious vein in his report to the 12th CPC National Congress: "We must on no account view such activities as merely ordinary crimes or anti-social acts. They are important manifestations of class struggle under the new historical conditions in which we are opening the door to foreign countries and directing our efforts toward enlivening the domestic economy. Such destructive elements must be severely punished by the law." What was said by Hu Yaobang has made it very clear that our struggle against criminal activities in the economic and other spheres is an important manifestation of class struggle under the new historical conditions. The decision of our party to adopt the open-door policy and to invigorate the domestic economy is irrevocable. The effectiveness and correctness of this policy has been borne out by our experience since the 3rd Plenary Session of the 11th CPC Central Committee. However, in the process of implementing this policy, we have been confronted with new and complicated situations and problems. The adoption of the open-door policy has made it possible for the infusion of undesirable capitalist trends and influences and for capitalist ideas to corrupt and to sway those elements who are lacking in their convictions. The policy of enlivening the domestic economy has offered the opportunity to the unlawful elements to engage in criminal activities and to damage the

socialist economy. In view of the inevitability of serious criminal activities in the economic, political, ideological and cultural fields, we must hold firm to our twin objectives both in ideology and in action. We must, on the one hand, firmly adhere to the open-door policy and the policy of enlivening the domestic economy and, on the other, wage a resolute struggle against grave criminal activities which endanger socialism in the economic, political, ideological and cultural spheres. No conflict exists between adhering firmly to the party's open-door policy and the policy of enlivening the domestic economy and waging at the same time a relentless struggle against grave criminal activities in the economic and other fields.

In this new historical era, a prominent feature may be noted in the grave criminal activities in the economic and other spheres, namely, the existence of a small number of corrupt and degenerate elements within the party and government who serve as "inside accomplices" and "protective umbrellas" for unlawful elements undermining socialism. For this reason, in our struggle against grave criminal activities in the economic and other fields, we must, in addition to exposing and dealing a blow against the unlawful elements in society, also expose and deal a blow against the small number of corrupt and degenerate criminal elements within the party and government. There are some comrades who are concerned that this would have a negative effect on the prestige of the party and government. Such worries are not warranted. It is an established fact that serious criminals do exist among the small number of corrupt and degenerate elements within the party and government. They have, through their actions, already done serious harm to the party and the people and damaged the prestige of the party and government. If we do not expose and take action against them and avail ourselves of the lesson we have learned to educate party and government workers, would we not be doing further serious damage to the prestige of the party and government? Facts have proved by exposing those corrupt and degenerate party members, especially those cadres guilty of grave criminal activities, and punishing them according to the law, we would serve to uphold the prestige of the party instead of damaging it. When the people become aware of the relentless way in which the party and government go about exposing such criminal elements, they feel reassured that they can count on the party and government to uphold the law in a just manner and draw the conclusion that only the Communist Party and the People's Government would act in such a fashion. It is to be noted in particular that by exposing these criminal elements and by using the evidence of their crimes as teaching materials on what not to do in educating the large number of party members and cadres, we would be helping the people to draw a lesson and immunizing them against such criminal activities. Thus, we must neither exaggerate the dark side of the party and government nor fear to expose it under any circumstances. We have the means and the vigor to wage a struggle against the forces of corruption and to emerge victorious from the struggle.

Since the struggle against serious criminal activities in the economic, political, ideological and cultural spheres is a long-term mission, it must be waged in a resolute and relentless manner. In the last half year or so, we have already won a preliminary victory in waging a struggle against grave criminal activities in the economic field, in basically putting an end to

illegal economic activities which had threatened at one time to get out of hand, in dealing a blow to a large number of economic criminals, and in safeguarding the cause of socialist economic construction and the livelihood of the people. We must not, however, overlook the complexity of the problem and the magnitude of our present struggle. We must continue to direct our efforts toward conquering the tendency to let paralyzing ideas get the better of us and to feel overwhelmed by the complexity of the problem. We must on no account relax our will to fight. Some comrades are of the view that our main concern at the present time should be to study the documents of the 12th CPC National Congress and that there should be a "respite" in our struggle against serious criminal activities in the economic and other spheres. This line of thinking cannot be more erroneous. There is no conflict between studying the documents and acting in the spirit of the 12th CPC National Congress on the one hand and waging a struggle on the other. On the contrary, we should use what we have learned from the documents and the guidance they have provided as an impetus to wage a more effective struggle and to achieve a greater victory. The central organs have emphasized time and again that the waging of the struggle in a creditable manner offers the best guarantee for the realization of socialist modernization. In his report, Comrade Hu Yaobang called upon the entire party "to acquire a clearer understanding, to stand firm on our convictions, and to wage this struggle in a resolute manner to its conclusion." For this reason, we must fully understand that the waging of this struggle is central to the implementation of the spirit of the 12th CPC National Congress and that we must not relax our efforts in our long-term struggle against grave criminal activities in the economic and other fields.

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CSO: 4006/050

## ECONOMIC MANAGEMENT

### LU DONG CALLS FOR QUALITY, VARIETY IN PRODUCTS

Beijing ZHONGGUO CAIMAO BAO in Chinese 23 Sep 82 pp 1, 2

[Speech by Lu Dong [0712 2639], Vice Minister of State Economic Commission, delivered at the Fourth National Conference of Representatives of Quality Control Groups, entitled, "Developing Varieties and Improving Quality Are Strategic Tasks for Industrial Departments"]

[Text] On the occasion of the opening of the fourth national conference of representatives of quality control groups, I, on behalf of the party group of the State Economic Commission, wish the conference every success.

The convening of this conference during "quality month" for exchanging experiences among the quality control groups and reviewing the achievements of these groups is of great significance in intensifying the work of total quality control and in improving the quality of products, engineering work, and communications and transportation, posts and telecommunications, and other services.

This conference, convened jointly this year by the State Economic Commission, the All-China Federation of Trade Unions, the China Scientific and Technical Association, and the China Quality Control Association, is the first of its kind in China. The conference itself reveals a new phase in the development of the activities of our quality control groups. These activities began in 1978 after the smashing of the "gang of four" and have developed rapidly with remarkable success since the Third Plenary Session of the 11th Party Central Committee. They represent not only an important organizational form of the participation in quality control by workers and staff members exercising their rights as masters, but also an effective way for these workers and staff members to learn science and technology (including scientific management) and to carry out technical transformation or make reasonable proposals. The many achievements of the quality control groups have vividly proved that science and technology, once in the hands of the broad masses, will become a tremendous material wealth. The activities of quality control groups have continued to attract the attention of the leading departments, and this is only natural. There are immense advantages for these activities under the socialist system in our country, such as the direct leadership and support of the party and the government departments at all levels, the support and

assistance of the All-China Federation of Trade Unions and the trade unions at various levels, and the assistance and specific guidance from the China Scientific and Technical Association, the China Quality Association, and the scientific and technical mass organizations at all levels. Furthermore, there is the fine tradition of participation by workers and staff members in the management of the enterprises. Therefore, the work of our quality control groups is of great vitality. In this conference, I hope all will carefully sum up and exchange their experiences and display the achievements of their activities, in order to make this conference a success.

This conference is opened on the auspicious day of the successful conclusion of the 12th National Party Congress. Every one of us has read the documents of this congress, including Comrade Deng Xiaoping's inaugural address, Comrade Yaoban's report, and the speeches of comrades Ye Jianying, Li Xiannian, and Chen Yun. The 12th National Party Congress has marked another great historical change since the founding of our party. We must conscientiously study the documents of this congress, resolutely act in accordance with its spirit, and strive to create a new situation in all fields of socialist modernization. The general objective of China's economic construction set by the congress is, while steadily working for more and better economic results, to quadruple the gross annual value of industrial and agricultural production--from 710 billion yuan in 1980 to 2.8 trillion yuan or so in the year 2000. This objective calls for not only a simple increase in quantity but also an improvement of quality, an increase in varieties, and a higher level of technology so that we will be able to produce first-rate products, increase their adaptability and competitive power in the international market, and gain even better economic results. Therefore, developing varieties and improving quality constitute a very arduous strategic task for our industrial departments.

The leading comrades of the Party Central Committee and the State Council have attached great importance to increasing varieties and improving quality, and since the beginning of this year they have made many comments and issued many directives on this subject. They also called on the State Economic Commission and the economic departments at all levels to pay great attention to the question of varieties and quality, and to treat this question as an important matter in our work. To attain the lofty strategic objectives set by the 12th National Party Congress and to act in accordance with the spirit of the directives issued by the leading comrades of the Party Central Committee and the State Council, I would like to take this opportunity to express some tentative views on certain basic problems in the effort to increase varieties, to improve quality, and to lay a good foundation for economic development in the next 10 years by taking full advantage of the present readjustment, as already discussed in an earlier symposium with the comrades concerned in several leading industrial departments. I hope all of those who are now here will discuss and study these views.

## I. Enhancing Our Understanding and Stressing the Great Importance of Variety and Quality in Industrial Production

Variety and quality form a closely related entity which, in essence, refers to the technical level of products and their suitability to social needs. One of the important problems in our industrial production at present is that the technical level of our products is too low and the products are unsuited to social needs. To accomplish the unity of accelerated development and economic results so that our national economy will embark on the road of steady and healthy development and so that a reliable foundation can be laid for vigorous development in the 1990's, we must from now on treat variety and quality as matters of primary importance in industrial production. We must strive for technical progress and treat the technical level as a matter of great importance.

At present, the general situation of industrial production in our country is fine. The objective of "ensuring an increase of 4 percent and striving for an increase of 5 percent" can be attained, and the streamlining of industrial production with a view to restoring the fine quality of products has basically been completed. However, what deserves our attention is the fact that it is now quite common to stress output at the expense of quality. This shows a complete lack of understanding by many leading comrades concerning the relationship between quality and quantity. Particularly because of the recent upswing in heavy industry, the old idea that "the mud on a fast-growing turnip need not be washed away" has again affected some comrades. There has been an increase in some light industrial products, but they are not selling well. In both light and heavy industry, the question of variety and quality is an important one. Yet their production is sloppy, and some people even resort to dishonest tactics. If these defects are not radically corrected, if outdated products of inferior quality but with high prices continue to go to other enterprises for "equipment renovation," and if the problem of unwanted goods continues in the one-sided quest for "speed" regardless of economic results, we can only return to the old path that we took before the readjustment.

In rearing varieties and improving quality are an important way to improve economic results and a basic policy for industrial development with a bearing on the future and the destiny of industry. Therefore, we should do more publicity work in this respect, so that its significance will be understood by every household and individual. The leading comrades of industrial departments at all levels must recognize more clearly the importance, urgency, and arduous nature of this work, and must under all circumstances attend to it unswervingly as a matter of prime importance.

## II. Developing Variety and Improving Quality as a Strategic Task, and the Need for a Strategic Objective for All Departments and Localities

Instead of a temporary expedient, developing variety and improving quality are the outcome of many years of experience at home and abroad. One of the reasons why many of our products have remained unchanged for 20 or 30 years is, aside from incorrect ideology, the lack of long-range planning. We have been satisfied with only patchwork here and there, and that is why we have always remained backward. To remedy this situation, we must set a distinct strategic objective.

The basic requirement of this strategic objective is to raise the technical level and make scientific and technological progress. Of course, improving the quality of our presently low-level products is a very important task which must be carefully accomplished. In short, the problem basically cannot be solved if this task is not carefully attended to. In accordance with the requirements of the "three generations" (that is, improvement for the present generation, research for the second generation, and planning for the third generation of products), and based on the existing international level, the present conditions of their own products, and the market forecast, all departments and localities should consider production needs and feasibility, and accordingly work out their plans or plan outlines for 3 years, 5 years, or even longer. They should also adopt a series of measures and organize the forces in various quarters to tackle the difficult problems so as to bring about a significant change in their variety and quality.

Whether there is a strategic objective in the development of varieties and the improvement of quality is, in a certain sense, an appraisal of the work of the economic departments in charge at various levels as well as an evaluation of the mentality and progressive spirit of the leading comrades at various levels. I hope there will be some long-range plans in each department and locality for their new products, and that these plans will gradually be implemented in an organized way.

### III. Including Variety and Quality in State Plans

In capitalist countries, as we all know, the motive force for developing variety and improving quality comes from competition. Under socialism, planned economy plays the leading role, while market regulation plays a supplementary role. In accordance with the characteristics and special features of the socialist economy, we must strengthen our planning to be used for guidance, proceed from social needs, and include variety and quality in state plans. There should be specific measures and plans, such as plans for the regular production of new products, plans for tackling difficult problems, and plans for popularizing new technology, together with a set of indices for evaluation. We have to consult the State Planning Commission about the specific substance of the plans, and all departments and localities should cooperate with the relevant departments to work out specific plans for their variety and quality.

### IV. Taking Positive Action in Adopting International Standards

In raising the technical level, developing variety, and improving quality, there is first of all the question of technical standards. The standards of our products at present are far too backward, being of the 1950 or 1960 vintage. The quality of products has to be judged by the percentage of those that are up to standard. However, if technical standards are low and backward, even a product that is 100-percent up to standard can only be 100-percent backward. I say this not because of my desire to ignore the need for old products to be up to standard, but rather because of the need to guard against conservatism and complacency with regard to the old technical standards.

As we understand it, there are approximately 10,000 national standards in each industrially developed country, and these standards have to be revised once every 3 to 5 years. We have many fewer national standards, and 60-70 percent of them were in use way back in the 1950's or 1960's. We must be aware that such standards are a serious obstacle to our efforts to raise our technical level. We must therefore make innovations and a revolution in our technical standards.

Some comrades have forcefully pointed out the difficulties in adopting international standards. We must admit that there are difficulties in raising the standards; however, if we want to raise the technical level, we must have the determination and courage to overcome difficulties and to scale the high peak. If we are satisfied with low standards instead of doing any hard work and making painstaking efforts, there will not be much hope for the four modernizations. During the First Five-Year Plan, we adopted Soviet standards, and had difficulties at the very beginning. However, we soon got over these difficulties. Now we have a much better foundation. We admit that conditions are an important factor, but as long as we have the determination and exert our efforts, the difficulties can be overcome. Perhaps, starting next year, we can set up 1,000-1,500 national standards each year, and in 5 years or a little longer, we may be able basically to solve the problems. All departments and localities are requested to study this matter carefully. If conditions permit, they should first adopt international standards and then improve them later. The comrades at the State Standardization Bureau are now actively studying the implementation plans.

The adoption of international standards has to be supplemented with certain means of checking and some technical measures. All departments and localities should have the determination to spend money on these measures and try to improve them in a planned way.

#### V. Energetically Popularizing the New Achievements in Applied Science and the New Technology, With Science and Technology Taking the Lead

The objective of having the policies of science and technology take the lead and of "quality first" is to raise the technical level. These two policies are closely related, because without science and technology taking the lead, there will be no development of variety and improvement of quality, while without the need to develop variety and improve quality, there will be no opportunity for science and technology to play their role. In the next 20 years, if we truly rely on and pay great attention to technical progress, many problems which now seem difficult will be solved. On the contrary, if we do not rely on or pay attention to technical progress, then it will be quite difficult or even impossible for us to "quadruple the gross annual value of industrial and agricultural production." With a view to developing variety and improving quality, we should now carefully attend to two links in our scientific and technological work: First, we must redouble our efforts in tackling difficult technical problems. We must stress the need for science and technology to serve production. At present, we cannot raise the technical level of some of our products simply because certain technical problems have turned out to be bottlenecks. We must organize our forces in the scientific and technical

fields in order to solve these problems one by one. All departments, localities, and enterprises must have distinct goals and priorities for their work, strengthen the weak links, overcome the technical difficulties, and systematically solve the problems of raising the technical level. Second, we must energetically popularize the new achievements in scientific research in our country and the new technology imported from abroad, and make painstaking efforts to turn science and technology into a real productive force. As we understand it, the utilization rate of scientific and technological achievements in the developed countries is generally around 50 percent, and sometimes as high as 80 percent. In our country, however, it is only 10-30 percent. This is a great loss and waste. We have imported many new items of technology from abroad in the past several years. We must organize our forces to assimilate, popularize, and use them.

#### VI. Carrying Out Technical Transformation in a Planned and Selective Way

The main purpose of technical transformation is to raise the technical level. To change the backwardness of our industry, in which many products have remained unchanged for many years, and to shift our national economy onto a new material and technical foundation, we must carry out a technical transformation, beginning with the upgrading of products. (Of course, technical transformation is also carried out for the purposes of energy conservation and a reduction of consumption and production costs.) In any case, the transformation cannot be undertaken on an all-out basis and on the spur of the moment. We must also pay attention to energy, communications, light industry, the electronics industry, the machinery industry, and other key projects and carry out the transformation in a planned and systematic way. Since the promulgation by the State Council of the "Decisions Concerning the Selective and Systematic Technical Transformation of Existing Enterprises," the machinery trade, in accordance with the spirit of these "Decisions," has worked out its preliminary plans based on the purpose, substance, methods, and steps of technical transformation in the machinery industry. In order that there will be unity of purpose, a distinct goal, and coordinated action in technical transformation, I propose that all departments and localities work out similar plans on a long-term or annual basis.

The concrete methods of technical transformation should be constantly reviewed and new ideas should be constantly introduced. Recently, the leading comrades of the State Council have viewed with high regard the "dragon" experience of the Shanghai textile departments in developing new chemical fiber textile products. This experience has greatly enlightened us. When we were inspecting the electronics industry in the Beijing area, we also met with similar conditions. Whenever we talked about the quality of finished products, we also brought up the question of elements and parts; whenever we talked about elements and parts, we brought up the question of raw materials; whenever we talked about the quality of raw materials, we brought up the question of technology and equipment; and so forth. This shows the futility of attending to anything in isolation, which at the very best would require "double effort to produce half the normal result." Therefore, in developing variety and improving quality, we have to use the methods of system engineering

to bring about a close coordination of all factors--from raw materials to the basic parts, elements, and accessories; from design to technology and equipment; and from technical training to technical management; and so forth. In short, technical transformation must be carried out as though it involves a complete set of equipment, with the upgrading of products taking the lead.

#### VII. The Need for Continued Total Quality Control in Enterprises

Total quality control is an effective method of management to ensure the improvement of quality, and it is in popular use in many countries in the world. In 1979, our country began to learn and popularize it, and the State Economic Commission issued the "Provisional Regulations on Total Quality Control by Industrial Enterprises." The situation with regard to total quality control is fine. It is being popularized in varying degrees by the localities and trades, and some exemplary units have emerged. There are now more than 160,000 quality control units, and certain economic results have been achieved. This shows the great vitality of this method of management.

There is still uneven development in the practice of total quality control. In the machinery industry, as we understand it, only 5 percent of the units are doing well, and 25 percent of them can only get by. Some units confine their work to mathematical statistics, and many of them have not even begun this work, or are doing it only for show. What is particularly unfortunate is that some leading comrades fail to appreciate this because of their ignorance. We must conscientiously sum up our previous experiences, face our difficulties and problems squarely, study the actual conditions, and perseveringly and steadfastly carry out total quality control. First of all, we must solve the problem of understanding on the part of the principal leading cadres, and follow Shanghai's example in conducting rotational training classes for total quality control and in carrying out education in total quality control among the industrial bureau chief, corporation managers, and directors of large plants, so that they will have a clear idea of the basic guiding thought behind total quality control as well as its basic theories and principal methods, and will become more eager to apply the science of modern management. At the same time, efforts should be made to lay the ideological, technical, and managerial foundations, to set in order the comprehensive maintenance and control of equipment, to improve the various rules and regulations as well as the system of responsibility, and to enforce a system of checking--from the entry of raw materials into the factory to the time of their departure from the factory in the form of finished products. In this way there will be a marked change in the style, appearance, and discipline of the factory, resulting in an overall improvement in the work of quality control in industrial enterprises.

#### VIII. Training Workers and Staff Members in a Realistic Way

Systematic education for workers and staff members is a basic task for the state's cultural and material development. Nearly half of the present workers and staff members are under 35 years of age, having come to work during the

"Cultural Revolution." The overwhelming majority of them have not received any systematic professional training, and yet they are undertaking important production tasks. This is a very undesirable situation. Just think, how can the technical level in industry be raised without a corresponding rise in the technical level of the workers and staff members? Therefore, we must conscientiously implement the "Decisions on Strengthening the Education of Workers and Staff Members" and bring about a comprehensive rise in the political, cultural, technical, and vocational level among workers and staff members.

From what we could see in the past, the education of workers and staff members did produce good results, and to a certain extent it has helped to improve the quality of our work force. Because of their originally weak foundation, however, these achievements can only be the beginning of a long task, and they are still far too inadequate for the developing situation. We must fully recognize the great strategic and real significance of this work, strengthen the leadership, and set our minds to making the education of workers and staff members a success. While attending to the two priorities of training the cadres and making up the missed lessons in culture and technology for the young and middle-aged workers and staff members, we must also pay attention to the education of technical personnel and quality control personnel, to scientific research, and to the study of new technology for technical transformation projects. There can be a firm foundation for the development of variety and improvement of quality only when these jobs have been successfully completed. Without an improvement in the cultural, technical, and political quality of our work force, it will be impossible to develop variety and improve quality.

#### IX. Certain Policies and Regulations on Encouraging the Development of Variety and the Improvement of Quality

In the past, we were "eating out of the same pot," and the production of good or poor, new or old products made no difference to the enterprises. Some enterprises even had to suffer because they were producing new products. There have been some changes in recent years, but these changes are still not enough. Unless there is an improvement in policies, it will be difficult for enterprises to acquire the innate driving force for developing variety and raising quality to a higher technical standard. This is one of the basic problems that must be solved in developing new products and improving their quality.

To arouse the enthusiasm and creativity of the enterprises so that they will have the required innate driving force, we must adopt a series of policies. The problem of the source of funds for the manufacture of new products, for example, is still unsolved. Again, the policy of pricing on the basis of quality and setting a high price for high quality has not been entirely implemented. Lenin once said: "Since the setting of monopoly prices (although temporarily), there has been an incentive for technical progress and, therefore, progress in all other fields. Without such action, the incentive will disappear to a certain extent, and this may hold up technical progress needlessly by economic means." This problem must be conscientiously solved. There is also the question of how a reward system can embody the "quality first" policy.

This system must be further improved. Furthermore, we must proceed with the making of laws, decrees, and rules and regulations concerning responsibility for products, and strictly enforce the system of responsibility for quality. While encouraging the production of new products, we should at the same time unequivocally restrict or eliminate the production of outdated ones. We may consider publicizing a number of outdated products each year in order to promote the updating and upgrading of products. Some time ago, the state proclaimed some policies, as shown by the "Regulation on Rewarding Rational Proposals and Technical Transformation" and so forth. This was a very good beginning, but in addition we need to assign special personnel to continue the study of these problems so as to be sure that these policies and regulations are well coordinated.

#### X. Strengthening Supervision Over Quality

In the country as a whole, the State Standardization Bureau, the Weights and Measurements Bureau, the State Pharmaceutical Administration Bureau, the Shipping Inspection Bureau, and the Import-Export Commodity Inspection and Testing Bureau have done a great deal of work in the past in the area of supervision over quality, and they have achieved certain successes. Reliance on these departments alone is not enough, however, since there are still many products without any rules and regulations to guide and without anybody to supervise their production. Supervision over quality should be further strengthened. For example, the issuance of production permits is a good method, but how can this method be widely used, and who is to control the permits? This problem has not been completely solved. Again, how will the departments, provinces, and municipalities set up and strengthen their supervisory organs? How can the enterprises' function of quality inspection be further strengthened? All of these problems should be studied seriously in order to further improve the state's system of supervision over quality.

So far, I have dealt with 10 aspects of the problem of developing variety and improving quality in the production of industrial products, and some of the basic spirit behind them can in principle be used to improve the quality of engineering, communications and transportation, posts and telecommunications, and other services. In quality control, these 10 aspects, in my opinion, concern the basic characteristics of capital construction. Some of them are already being carried out, while others are ready to be. Their substance still needs more filling in, and the policies need to be further studied and worked out. The key to the successful completion of this work lies in the leadership at various levels. Since the work of developing variety and improving quality involves quite a wide range of problems, we can anticipate a lot of difficulties in this work. However, we must have confidence in our country as a socialist country. As long as we bring into full play the strongpoints of the socialist system, actually strengthen the specific leadership over this work, and are given the cooperation of various departments for a general improvement, we can certainly accomplish this work faster than the capitalist countries can, and then help to bring about a vigorous industrial developing in our country. It is suggested that all departments and localities follow the example of Shanghai, Tianjin, and Liaoning and work out, in light of their local conditions, regulations on rewarding the development of new products and improving quality.

These regulations can be gradually improved after some mandatory experiments. They should also follow the examples of the Ministry of Machine Building, the Ministry of Water Conservancy and Power, the Ministry of Metallurgy, and the Ministry of Coal Industry in studying the problem of quality in certain key products and in holding quality-adjustment meetings between the production departments and the user departments; at those [meetings] the production departments earnestly solicited opinions for solutions to existing problems relating to quality and expressed their sincere desire to serve the users, while the user departments, out of a sense of responsibility to the state, made realistic and strict demands and actively cooperated with the production enterprises in adopting well-planned, progressive measures in the common effort to develop new varieties and improve the quality of goods. In short, we must pool our resources to speed up the development of variety and the improvement of quality, in order to contribute to the creation of a new situation in socialist modernization.

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CSO: 4006/027

## ENERGY

### BRIEFS

NEW GUANGDONG POWER LINE--The 110,000-kilovolt high-tension transmission and transformer project from Xinfeng and Longmen to Zengcheng formally began operations yesterday. Yesterday morning, Comrade Liang Lingguang officiated at a ribbon-cutting ceremony in Zengcheng to celebrate the completion of the project. "This project is a project handled very quickly, very well and very economically by our city and constitutes an important part of our effort to create new prospects for the building of socialist modernization," he announced. This 110,000-kilovolt high-tension transmission and transformer project began in October of last year and the construction phase took only 10 months. The system was tested at the end of August of this year. The completion of the project will enable the small-scale hydropower stations of Xinfeng and Longmen to feed more than 20,000 kilowatts of unused electric power into the larger provincial grid, supplying electricity to Zengcheng, and earning more than 5 million yuan a year for the two mountain counties of Xinfeng and Longmen. Also, the more than 100 million kwh now fed into the power network of Zengcheng by the Huangpu Power Plant may be diverted for industrial production in the Guangzhou municipal area. This is a project that, upon completion, will see immediate economic benefit. These two mountain counties have 200,000 kilowatts of exploitable hydraulic power resources and have already constructed small-scale hydropower stations with an installed capacity of 46,000 kilowatts, leaving three-fourths of this resource to be developed. [Text] [Guangzhou GUANGZHOU RIBAO in Chinese 1 Oct 82 p 1]

YUNNAN 110,000-KV TRANSMISSION LINE--The 110,000-kilovolt high-tension power transmission line from the Xunjiansi Power Plant to the Yuxi transformer station began operations on 31 August to complete the north-south coordination plan. After a complete overhaul of the Yuxi transformer station, the Xunjiansi Power Plant can supply 400,000 kwh daily to the central Yunnan power grid, basically meeting the power needs of the Yuxi area and easing the overload now on the central Yunnan grid. The transmission line has a total length of 85.5 kilometers and forms a bridge between the central Yunnan grid and the southern Yunnan grid. [Text] [Kunming YUNNAN RIBAO in Chinese 5 Oct 82 p 1]

CSO: 4013/58

## CONSTRUCTION

### SERIOUS ACCIDENTS IN GUANGDONG, HUNAN INVESTIGATED

Beijing JIANZHU in Chinese No 8, 1982 pp 6-7

[Article by the Construction Administration Bureau of the State Capital Construction Commission: "Draw Lessons From Two Serious Accidents"]

[Text] Editor's note: In May and June of this year, two serious accidents, caused by the collapse of buildings in Haikang County, Guangdong, and Hengnan County, Hunan, brought tremendous losses of lives and property of the people. With a heavy heart, we are going to report on the course of events leading to these two serious accidents and the various causes of these accidents. We hope all localities will draw lessons from them, strengthen the management of urban, neighborhood and rural construction forces, and resolutely solve the problems of rash action in design and construction work as well as blind commandism. In accordance with the urgent notice and request of the commission, they should also make a careful check of all projects, either completed or under construction, so as to uncover and promptly solve any problems that otherwise may remain hidden, as a precaution against serious accidents. The leadership at all levels must take a serious view of this matter, which must not be overlooked.

#### The Collapse of a Seven-Story Hotel in Haikang County, Guangdong Province

On 3 May of this year, a serious accident occurred in Haikang County, Guangdong, with the collapse of a seven-story hotel building.

This building was a reinforced concrete structure with a floorspace of 4,190 square meters. Construction began in July 1980 and was basically completed in April 1982. The hotel was prepared to open on "1 July." At 1800 hours on 3 May, the whole building suddenly collapsed, causing four deaths, one serious injury, and two light injuries, and a direct economic loss of more than 630,000 yuan. That building was designed by the county design office and built by the county construction company. An investigation revealed poor design as the main cause of the collapse, but many problems with the construction units and the administration departments have also been brought to light.

The main problem with the design was that the design personnel proceeded with their work before they were familiar with the actual geological data. As a result, there were serious discrepancies between the designed foundation and the surface structure.

1. The stress capacity was seriously inadequate. Tests conducted after the collapse showed that the [actual] stress capacity was 4-5 tons per square meter, whereas the design was based on a stress capacity of 10-12 tons per square meter, more than double the allowed weight.

2. The foundation was not strong enough. The impact of the central column, according to the design, was 53 tons, whereas, according to experience, it should have been 163 tons. Thus the designed impact was only 32.5 percent of the proper weight.

3. The calculations for the entire structural frame were wrong. The cross-sections of the girders and reinforcing bars were not up to standard, and the joints were poorly constructed. For example, the reinforcing bars for the main column at the bottom level, according to the design, were only 8.51 square millimeters, whereas, according to experience, they should be 44.61 square millimeters. Thus the design could only meet 19.1 percent of the requirement.

There were also problems with the building administration and the leadership units. The construction did not follow the proper procedures, and no system of basic technical control was set up. For example, the joint checking of blueprints, the detailed explanation of the technical aspects, the making of work plans, the checking of raw materials and structural components, the experiments of mixing mortar and cement and so forth either did not conform to the rules and regulations or were not carried out at all. There was no system of quality control and no record of acceptance checks; the technical force was weak; and the responsibility for the engineering job was undertaken by one who was only a former bricklayer. Since the county construction commission and the county capital construction bureau were not responsible for the administration and did not provide any guidance, the existing problems in capital construction were not studied and solved in time, and the management was chaotic. The task of designing the seven-story mansion was entrusted to an assistant engineer who did not supervise or make strict demands on the inspections. Particularly in June of last year, it was discovered that the building had sunk 5-10 millimeters at the worst spot and tilted by 33 millimeters with a crack. The county construction commission learned of this situation on 30 December but did not take any steps to investigate the cause. No action was taken for half a year, and then the accident occurred.

#### Collapse of a Workshop of the Quanxi Commune Pig Bristle Plant in Hengnan County, Hunan Province

At 1420 hours on 15 June this year, four panels in the central part of the bristle-selection workshop of the Quanxi Commune Bristle Plant, a commune-run enterprise, caved in. Except for 16 persons who escaped in time, all 64 persons on duty were trapped. Of these, 44 persons died, 8 persons suffered serious injuries, and 12 persons suffered mild injuries. This was a serious fatal accident.

That building was a three-story brick structure. The first and second levels were used as the bristle-selection workshop, and the third level was used as a dormitory for workers and staff members. The total floorspace was 1,428 square meters; the intercolumnation was 3.5 meters; the span, 10.5 meters; and the investment, 110,000 yuan. The main causes of the accident were as follows:

1. Serious violations of capital construction procedures. This is shown by: first, no capital construction plan was forwarded for approval; second, there were no regular design blueprints; third, there was no assurance of availability of funds and the "three materials"; fourth, there was no signed work contract; and fifth, there was no application for permission to start work. As soon as the commune party committee studied the project and expressed concurrence, Deng Yuncheng [6772 0061 4453], the deputy director of the commune enterprise office, immediately asked a member of the commune construction team to draw up two rough diagrams, and then the work was hastily and blindly started.

2. Sloppy design. Huang Junbo [7806 0193 0130], who drew the rough diagrams, was a plasterer with only 3 years' education in an elementary school. He had no knowledge of architecture and even less of structural computations. The rough diagrams he produced were only a hodgepodge of other engineering designs. When the commune leadership proposed that the two-story building be changed to a three-story one, and that the sloping tile roof be changed to a flat roof with hollow boards, he also expressed agreement, and as a result the supporting strength of the brick buttress at the bottom level and the reinforced concrete girders at all three levels became seriously and dangerously insufficient. First, according to calculations based on the design, the brick buttress at the bottom level could bear only 21.7 tons, but that section below the column and the brick buttress had to bear a load of 57.1 tons, or 2.62 times the allowed capacity. Furthermore, the reinforced concrete girders at all three levels, according to their actual cross-section and the reinforcing bars, can stand a maximum bending moment of 39.85 ton-meters, but according to the design, the bending moment had to be 116 ton-meters, 1.92 times too large.

3. Failure to conform to operational regulations, and poor quality of work. The commune construction team responsible for the construction was formed on a temporary basis, and there were no skilled workers. Yuan Youce [5913 0645 4595], who was in charge of the work team, did not refuse to start work without blueprints and never cared about the quality of work. For example, a 490 x 490 support wall was completely laid with the "baoxin" [0545 1800] method with the hollow space filled with half-length bricks. This greatly weakened the strength of the brick buttress. The 240-sleeper wall was not laid according to regulations. Its thickness ranged from 5 to 8 units [shun-yi-ding [3711 0001 0002]] and sometimes as many as 19 units. That was why the whole wall was full of concaves and convexes. There were large gaps at the vertical and horizontal wall joints, and vertical cracks could be seen in many places, some of them as long as 16 brick layers. The mortar was not applied well, because it did not adhere firmly to the surface. Also because of the poor quality of bricklaying, the attached columns could not share the weight with the wall, and some of the poorest quality ones had cracks extending across many

brick layers. Some of the cracks were as wide as 1 millimeter. Thus, the cracking of the support walls led to the collapse. Furthermore, work on the beams and slabs did not meet the design requirements, and the cement mark was not up to standard, some of it being 50 percent below the design. Many bars were exposed below the beams, and some of them became badly corroded. The poor quality of construction further hastened the workshop's collapse.

4. Rash action because the leaders knew nothing about science. Deng Yuncheng, the deputy director of the commune enterprise office, made changes as he wished during the preparatory stage, and arbitrarily commanded the construction team to remove the inner buttress of the brick walls. He also ordered the change from a wooden structure with two stories and a sloping roof into one with three stories and a flat roof. This change further added to the strain on the structure as a whole. Signs of an impending collapse were noticed for a long time, as the cracks in the walls became increasingly serious. The masses many times reported this to Zhu Meishun [2612 5019 7311], deputy secretary of the commune party committee, Hu Qijia [5170 0796 0163], director of the enterprise office, and Luo Shaosheng [5012 1421 3932], acting plant party committee secretary, but none of them paid any attention to this matter. In early June of this year, when the construction team proposed that something be done to strengthen the structure, they said: "June is a busy month, and we have to bring our output value up to 60,000 yuan." Thus, the last attempt to save the workshop failed. Serious negligence on the part of the leaders was the main cause of this tragedy.

To educate the cadres and people, the authorities of Hengnan County, Hunan Province, have strictly enforced the law and put those responsible for this accident under arrest.

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CSO: 4006/035

## CONSTRUCTION

### QUALITY CONTROL STRESSED IN BADALING HIGHWAY CONSTRUCTION

Beijing GONGLU in Chinese No 8, 1982 pp 10-11

[Article by Xia Chuansun [1115 0278 5549] and Huang Zhiyi [7806 1807 3015]:  
"Some Thoughts on Engineering Quality Control in the Construction of the New  
Badaling Highway"]

[Text] The new Badaling highway is an economic trunk road connecting Beijing with the northwest as well as a tourist road leading to the historical site in Badaling. Therefore, provided that the natural landscape was affected as little as possible and as much money could be saved as possible, construction of this highway called for high standards, good quality, and a short construction period. A second-grade highway technical standard was adopted for the entire line, and the construction was designed by the No 2 Survey and Design Institute under the Ministry of Communications. The exact technical standards were as follows:

Technical Standards	Unit	Plains and Undulating Hills	Mountains and Cliffs
Designed speed	km/hr	80	40
Foundation width	meter	24 - 15	12 - 10.5
Surface width	meter	18-12	10.5 - 9
Minimum radius	meter	440	70
Maximum gradient	percent	4	6
Weight limits for bridges		Car - 20 Trailer - 100	Car - 20 Trailer - 100
Net width of tunnel	meter		9+2x0.75

The main engineering work consisted of: stone and earthwork for the road foundation, 1.2 million cubic meters; mortar masonry, 90,000 cubic meters; 5 large bridges with a total span of 644 meters; small bridges, 171; two tunnels, 274 meters. The plan called for 2 million man-days. The stone and earthwork for the entire road, the small bridges, and the retention walls were undertaken by a work force consisting mainly of civilian workers organized by Changping County and Yanqing County, while construction of the large bridges, tunnels,

and road surface was undertaken by a special team organized by the highway engineering corporation of the Municipal Transportation Bureau and the two counties. A leading group formed of the leading personnel of the construction, design and work units was to be responsible for directing the engineering work of the entire road.

To ensure completion of the task according to plan and to the required standards of engineering quality, we mainly did the following items of work.

#### 1. Strict Compliance With Capital Construction Procedures

We conscientiously followed the relevant regulations of capital construction procedures, such as surveying before design and designing before starting work. We have learned that these constitute the objective laws for good performances in capital construction. The survey and design for that highway were carried out in separate stages. In 1974, we completed the preliminary design and estimate, and, after examination and approval by the Municipal Capital Construction Commission, we completed the detailed surveys and the blueprints in 1979. During the detailed surveys, we carried out intermediate inspections, and prior to the conclusion of outdoor work and the beginning of inside work, an acceptance check was completed. The completed blueprints were handed over at the worksite. Before the work started, plans were worked out on the basis of the blueprints to be used as guidance in actual work. The work units were also organized to study and check the blueprints, to familiarize themselves with the design documents, and to conduct supplementary inspections and work surveys. Because of these tasks, we were able to keep the initiative in management right after the beginning of work, and the engineering project proceeded smoothly.

#### 2. Following the Designs in Work and Observing the Regulations in Dealing With Other Matters

Firm adherence to technical standards and emphasis on the need to follow the designs in work and to observe the regulations in dealing with other matters are important conditions for ensuring high engineering quality. We introduced our design experiences at different meetings, along with the explanation that in guaranteeing the high quality of the designs, the design departments had done a great deal of work in investigating and conforming; that the designs for the important sections of the road and the large bridges were the results of comparisons of many alternate plans; and that these designs therefore should not be changed at will. After these meetings and the frequent checks, everyone became convinced of the need to respect the designs and regulations, so that observance of regulations and adherence to the designs became their voluntary action. At the same time, a system of job responsibility was set up and strengthened, and special persons were assigned to check the quality of the work.

After the commencement of work, quality was neglected for a time because of the one-sided quest for speed. We discovered this problem in good time and took the following measures: 1) The showing of model engineering to be used as examples. This was a good way of educating the civilian workers. 2) Three detailed explanations (of technology, operation, and quality standards) in

various sequences of operation. The duties and responsibility of technicians were clearly defined, as a precaution against decisions on technical problems by administrative means. 3) Regulations on linking quality with economy. Sub-standard engineering should be brought up to standard even if a start had to be made all over again. The responsible party should be held economically liable (and the work units undertook the work on a contract basis). 4) Overall inspection on the quality of engineering by the work units when work on a section of the road was nearly completed and before the workers left the worksite. The inspection should cover the quality of the structural materials, the geometrical measurements of the road, the drainage system, and the dumping site for discarded materials, and quality check should be made. This type of inspection is equivalent to an acceptance check. Everyone attached great importance to it, and that was why it was so effective.

### 3. Stressing Control Engineering and Work Management

Control engineering was carried out for the whole road as well as for different sections of the highway. When the order of work was arranged according to actual conditions, control engineering always had to come one step ahead of other things. Its progress had to be quick, and its quality had to be good. For the whole road, work on the large bridges, tunnels, and the major sections comprised control engineering, which was also required for some small bridges, retention walls, and some worksites requiring large-scale blasting. This had to be well coordinated with the engineering jobs requiring heavy stone and earthwork. To avoid damage to the natural landscape, the vertical extension of stone and earthwork and the dumping sites had by all means to conform to the design. That was why particular attention had to be paid to control engineering on this point.

The main job for the engineering leading group was to maintain an overall balance, to coordinate the activities of various work units, and to attend to work management. The work plans, materials, labor, and funds had to be well coordinated and rationally managed. This was the key to rapid progress and high quality of the work.

### 4. Giving Full Play to the Role of the Technicians and of the Work Design Groups

Organizationally, we made due arrangements for the technicians. For better coordination between surveying and design on the one hand and construction on the other, we let some technicians participate in surveys and design during the stage of detailed surveys, and let the work design groups participate in construction during the construction stage, so that these design groups could explain the blueprints and direct the construction.

The work design groups were under the leadership of the leading group as well as the leadership of the work units. They helped the work units solve technical problems and also carried out quality supervision for the leading group. In case of any change in design, increase or decrease in the workload, or revision of the estimate, requests for approval had to be endorsed by the work design group concerned. These groups could report to the higher levels on problems of quality during the construction through several channels, so that these problems could be studied and handled promptly.

Facts have proved that participation by construction personnel in design work and participation by design personnel in construction can play a positive role in arousing the technicians' enthusiasm and ensuring the good quality of engineering.

After a construction period of 1 year and 7 months, the Badaling highway is now open to traffic (although detours have to be made around the tunnels which are not yet open). After their inspection, the Ministry of Communications, the Beijing municipal leadership and the relevant departments all agreed that the engineering was up to the design standards and that the quality of work was good. Traffic conditions over more than half a year have shown that this engineering job is playing a definite role in alleviating the pressure of traffic in the Badaling tourist area and is welcomed by the tourist departments, the tourists, and the drivers of the freight transportation departments. According to a preliminary observation, the driving speed along the new road can be fairly high and very orderly. The result of the engineering work is fairly obvious. The amount of investment and the construction period were within the estimates and plans. Such good results, in our opinion, are inseparable from the several items of work mentioned.

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CSO: 4006/035

## CONSTRUCTION

### SUGGESTIONS ON IMPROVING ECONOMIC RESULTS IN BEIJING

Beijing JIANZHU JINGJI YANJIU in Chinese No 4, 1982 pp 16-19

[Article by Huang Zhongguang [7806 6850 0342]: "Several Suggestions on Improving the Economic Results of Construction in Beijing"]

[Text] The total area of the various types of housing constructed in the capital since the founding of the People's Republic is 87 million square meters, or four times that of old Beijing. This includes some 37 million square meters, or nearly 4 times the original area, for residential housing. There has also been great progress in municipal and public construction, and this has helped to change Beijing's appearance. New progress was made after the smashing of the "gang of four," and we began to pay attention to the relationship between "bones" and "flesh" in construction. From 1979 to 1981, a total of 11.35 million square meters of floorspace was completed for residential housing. This area was twice that of the sum total in the 10 years of the "Cultural Revolution." The achievements on the construction front in the capital have been quite impressive in the past 30 years.

In his report on the work of the government at the Fourth Session of the Fifth National People's Congress, Premier Zhao pointed out that in the future, the central task in economic construction should be the improvement of economic results. Since the broad masses of workers and staff members on the construction front in Beijing have shown much concern for ways to improve economic results in construction, here are several tentative suggestions for the reference of the departments concerned.

#### I. The Existing Problems

Because of the effects of "leftist" guiding thought in the past, the construction front in the capital, like other fronts, had problems of poor economic results. These problems were strongly reflected in the "three lows and two highs," meaning low percentage of completed work, low labor productivity and a low rate of machinery utilization, but a high percentage of funds used and high construction engineering costs.

##### 1. Low Percentage of Completed Work

In 1964 and 1965, an average of 59.8 percent of the work on Beijing was completed. After the "Cultural Revolution," this percentage was greatly reduced.

It is very low even now. In the 3 years from 1979 to 1981, the average proportion was 38.9 percent, a drop of 20.9 percent. The percent of work completed of a certain bureau between 1964 and 1965 was 58.2 percent, from 1979 to 1981 it was 37.2 percent, a drop of 21 percent.

The decline in the amount of work completed and the length of the work period had a direct impact on the reduction of fixed assets. Throughout the city the newly increased fixed assets in the 3-year period from 1963 to 1965 was 95.15 percent. In the 3 years from 1979 to 1981, the average was only 75.2 percent, a drop of 19.95 percent.

## 2. Low Labor Productivity

In terms of output value per worker, the average labor productivity in construction and installation in the municipality was 4,103 yuan in the 3 years from 1963 to 1965. It was raised to 5,071 yuan, an increase of 22.2 percent, in the 3 years from 1979 to 1981. A certain bureau raised its labor productivity from 5,928 yuan in 1964 to an average of 6,385 yuan in the 3 years from 1979 to 1981. This average was higher than the best level ever attained by 7.7 percent. However, the construction price of all types of houses increased in recent years, and if this factor is taken into account, labor productivity has actually declined.

Calculated in terms of measurement, according to the statistics of five fairly large construction companies, the average per capita floorspace in 1964 and 1965 was 37.1 square meters, while in the 3 years from 1979 to 1981, the annual average was 24.1 square meters, a drop of 35 percent.

## 3. Low Rate of Machinery Utilization

According to the statistics of a certain bureau, there was a total of 935 sets of construction machinery in 1953. This number increased to 12,226 in 1981. Thus in the past 30 years, the number of machines increased 12-fold, while labor productivity increased by 1.1-fold. These increases are quite out of proportion, especially because in this particular unit, the machinery utilization rate was relatively high. In some of the other units, the main items of construction machinery operated at only 30 percent of capacity. Much more can be done there.

## 4. High Percentage of Funds Used

According to statistics by a relevant unit, the output value for every 100 yuan used in civil engineering under the unified municipal plan in the past 4 years was 236.4 yuan. The major portion of these funds were used by the construction units and the smaller portion was spent on material and equipment reserves. The funds used were more than 30 percent higher than in previous years. The turnover of construction funds was also very slow, being only 0.4-fold each year.

## 5. High Construction Engineering Costs

According to statistics, the average cost of construction and installation for every square meter of floorspace in the municipality was 117.2 yuan in 1965 and 183 yuan in 1981. The cost in 1981 was 56 percent higher than that in 1965. The average construction cost for dormitories was 86.9 yuan in 1965 and 162.2 yuan in 1981, an 87-percent increase. There were several causes for the cost increases. First, the adjustment of the price of materials and the increase in enterprise profits and equipment brought a total increase of 28 percent. Second, the construction standard were raised by 15 percent. Third, the increase in the ratio of tall buildings raised the cost of construction by 3 percent. Finally, poor management accounted for an increase of another 10 percent.

## II. Causes Analyzed

According to a preliminary analysis, the main causes for the "three lows and three highs" are, in my opinion, as follows:

### 1. The Large and Expanded Scale of Capital Construction and the Large Number of Projects Under Construction

While the scale of capital construction has been reduced throughout the country in recent years, in Beijing it has increased. In 1964 and 1965, the area of new or continuing construction projects was approximately 3.9 million square meters. It increased to 13.14 million square meters in 1979, to 17.04 million square meters in 1980, and to 18.75 million square meters in 1981. The increase in construction brought about a corresponding reduction in the area completed, which accordingly dropped from 59.8 percent to 38.9 percent. The large scale of construction, the extensive area of engineering projects, and the huge amounts of materials, equipment, and machinery being used on the unfinished projects all combined to raise the percentage of funds utilized and to lower the machinery utilization rate. When the area of projects still under construction is extensive and the number of worksites is large, the inevitable increase in administrative and logistics personnel will directly affect labor productivity. Therefore, the large scale of capital construction is one of the main causes of the "three lows and two highs."

### 2. Municipal and Public Construction Lagging Behind Housing Construction

For a long time, municipal and public construction has lagged behind housing construction in Beijing, with the result that many engineering projects could not be carried out according to capital construction procedures, and many completed houses could not be available for occupation, thus adversely affecting economic results. In 1980, 790,000 square meters of floorspace were completed for dormitories under the unified plan, but 480,000 square meters--approximately 60 percent of the total floorspace--were not immediately available for occupation because, among other things, there was no supply of water, gas, heating, or electricity and no sewer system. Investigations have revealed that 25 percent, or approximately 1 million square meters, of all the housing projects in the municipality cannot be handed over for occupation

even after completion. Because of the shortage of housing and the fact that many completed houses have long remained vacant, there is now dissatisfaction among the broad masses, who can only "sigh at the sight of the houses."

### 3. Irrational System of Enterprise Management

At present, the main problems in the system of enterprise management are their being "large and complete" or "small and complete," the overlapping administrations with their multitiered departments, the low degree of efficiency, and the serious waste.

For example, the supply and control of building materials are too decentralized. The municipal supply bureau, the general building materials company, the building materials companies of various prefectures, counties and bureaus, and the building and construction units of the central government located in Beijing, nearly 100 [outfits] in all, have their own warehouses at every level, with their purchasing agents scurrying here and there. As a result, some materials are seriously overstocked, while others, especially those in short supply, are being hastily bought up and hoarded by everyone. Instead of alleviating the pressure on the market, this kind of buying has resulted in overstocking. In the case of timber, for example, some supply departments usually stock 30,000-40,000 cubic meters. This amount is excessive to the normal inventory, but it remains year after year, causing waste from the downgrading of the timber. Again, more funds are being tied up, because every unit has to keep several reserve funds and thus slow the turnover of funds. Furthermore, there is a waste of transportation facilities. Some warehouses in the northern part of the city have to supply the needs of worksites in the south, and those in the eastern part of the city have to supply the needs of worksites in the west. Finally, the large number of organizations and personnel have increased the expenses of material control.

The same situation exists in the production and supply of cement structural components. According to incomplete statistics, there are now more than 70 units, large and small, producing cement structural components in Beijing. They have altogether 20,000 workers and staff members, and their annual productive capacity of these components is 1.2 million cubic meters, which is enough to build 12 million square meters of floorspace. However, they have many problems. First, productive forces are wasted. At present, if the collective productive capacity of the first, second, and third component plants in Beijing is organized for production in a rational way, and supplemented by [the productive capacity of] some basic component plants, there will be enough production to meet the full requirements of the municipality and leave part of the products to be used for supporting other areas. Thus, approximately 40 percent of the small factories can be closed, suspended, merged, or retooled to produce other products. Second, there is no assurance of fine quality. The components produced by some small factories are poor in quality and high in price, and the use of these components cannot ensure good engineering quality. Third, there is a lack of unified organization for supply and transportation. The components produced in the eastern suburbs have to be transported to the worksites in the western suburbs and vice versa, thus causing great waste in transportation.

Now, let us see how the construction machinery is controlled and used. According to statistics, there were 58,000 sets of machinery in Beijing at the end of 1981, and the rate of mechanization worked out to 8.1 horsepower per worker. Most of these machines were in the hands of the construction enterprises of the central government located in Beijing, the capital construction engineering corps, and the municipal construction engineering bureau. The rate of mechanization was 12.2 horsepower per worker for the central enterprises located in Beijing, 16.6 horsepower for the construction engineering corps, 5.4 horsepower for the municipal construction bureau, 3.8 horsepower for enterprises directly under the prefectures and counties, and 2.3 horsepower for collectively owned enterprises. The construction machinery is owned by the units, and no adjustments can be made to meet the general need. Consequently, some units are holding onto many sets without using them, thus resulting in a low utilization rate for the machinery, while other units do not have enough of them, and so their level of mechanization remains low. Furthermore, each unit has to keep a supply of spare parts and accessories and set up their own repair shops. This practice has led to the hoarding of parts and the wasting of maintenance resources.

#### 4. Irrational Distribution of Tasks and Organization of Work

At present, there are always 12 or 13 million square meters of floorspace under construction in Beijing, and the worksites are spread out all over the city. A fairly large portion of the construction tasks have not been assigned on a regional basis so that the enterprises will be able to carry out these tasks in their respective areas. Thus, some companies in the eastern part of the city have to carry out their tasks in the west, and some of their work fronts extend from Xiangshan to Shijingshan, Wukesong, and all the way to Dongsanhuan, over hundreds of kilometers. What is particularly irrational is that some tasks involving whole streets or whole areas are parceled out among companies with different affiliations. Their jobs, so closely interwoven, will produce more harm than good. First, decentralization of leadership makes it difficult to provide on-the-spot direction. Second, the highly mobile character of the work force and machinery will not help to raise labor productivity or the rate of machinery utilization. Third, decentralized work is unfavorable for the organizing of large and parallel assembly lines, and will slow down the progress of work. Fourth, erecting a large number of work shacks and later removing them will increase administrative expenses. All these disadvantages will handicap the comprehensive improvement of economic results.

#### 5. Serious Waste Caused by Deviation From the Procedures of Capital Construction

Recently, a certain unit conducted an investigation into the waste in capital construction in Beijing and brought to light many problems. The wastefulness was shocking. One of the important causes of waste was the deviation from the procedures of capital construction. For example, some engineering projects were hastily started before any serious feasibility study was conducted. Then as soon as any trouble was discovered, they were immediately called off. One project involved the signing of a contract with a foreign merchant; its being started and being later called off cost \$4 million in compensation.

Also the starting and then calling off of a project to rebuild a hotel cost 600,000 yuan. Some "three simultaneous" [simultaneous designing, simultaneous construction, and simultaneous operation] projects met with so many setbacks that they had to be started all over again. A hotel, originally intended for social use, was reclassified as a tourist hotel while its construction was already in progress. The design had to be changed four times, and the need to do the work all over again wasted 280,000 yuan. It can easily be seen that wrong policy decisions on the part of the leadership can cause great waste.

### III. Several Suggestions

There are many causes for the "three lows and two highs," and some of them are beyond the control of Beijing Municipality, the capital construction departments, and the construction units. To improve economic results, we must therefore conscientiously implement the policy of national economic readjustment and adopt comprehensive measures under the leadership and with the collaboration of the relevant units of the central government before we can take any effective action. At present, we would like to suggest the following measures:

#### 1. Strictly Control the Area of New or Continuing Construction, and Concentrate Our Resources on Doing Our Work Thoroughly

In our opinion, the most important problem in the improvement of economic results is that of reducing the scale of capital construction, the strict control of the area of new or continued construction, and the concentration of resources so that we can work thoroughly. This problem must be solved first. This problem has been under heated discussions for many years, but the scale of capital construction in the capital, instead of being reduced, has even been expanded. Unless the scale is strictly controlled, it may further expand this year, and the economic results may further deteriorate instead of improving.

"Concentrating all forces to fight a battle of annihilation" is a correct policy affirmed by Comrade Chen Yun in 1959 in his article "Several Important Questions in Capital Construction at Present." Because of our violation of this policy, the problems of an extended front, long periods of construction, and serious waste have again cropped up. Previously, some people criticized this policy; in our opinion, their view was one-sided, and the result turned out to be contrary to their expectations. If this policy is interpreted so as to shorten the front, concentrate our resources, work out a well-balanced construction plan, and do the work thoroughly in different stages and different groups so that every project can be completed and delivered for use, it will not only shorten the construction period and raise the percentage of completed projects, but it will also save a great deal of manpower and material and financial resources and produce better economic results. Of course, in concentrating our resources, we must guard against the wrong methods of "human-wave tactics" and "losing everything because of protecting the key projects"--which happened in actual work in the past.

In line with the present situation in Beijing, if the area of construction, either new or continuing, can be controlled within 13 million square meters, and the proportion of completed projects can be increased to 45 percent, then 5.85 million square meters, a figure which is close to last year's actual

level, can be completed each year. Reduction of the construction area by 5 million square meters will also reduce by 500 million yuan the funds being used. Since more than half of the present projects are for the central authorities, the State Planning Commission therefore should first reduce the number of these projects, and Beijing should duly reduce its own. Only thus can the problem be solved.

## 2. Readjust the Investment Proportions, and Strengthen Municipal and Public Construction

According to calculations by the relevant departments, investment in municipal and public construction should amount to approximately 20 percent of the entire capital investment. In the past 2 years, however, the actual investment was only 5-7 percent, and the funds that are overdue for investment in municipal and public construction have accumulated to more than 1 billion yuan. Now that new projects are continuing to increase, there will be new debts before the old debts are paid. There now is an all-round shortage of water, sewers, gas, heating, electricity, and telecommunications, and the solution to this problem can no longer be postponed. To improve economic results, we feel that we should increase the investment in municipal and public construction, even if the scale of civil engineering has to be reduced.

## 3. Restructure the System of Capital Construction Management in Accordance With the Principle of Specialization

As mentioned earlier, the most serious defects in the present system of capital construction management are the ideas of being "large and complete" and "small and complete," and the waste of productive forces. We can start the restructuring with the system of material, structural component, and construction machinery control, in accordance with the principle of specialization. Our views are as follows:

First, establish a general company for unified control over the supply of building materials and equipment. All material and equipment supply departments of all the bureaus and districts in the municipality and of the central construction units located in Beijing should combine to form a unified management. Under the general company, a number of specialized companies (such as timber, reinforcement bars, cement, hardware, and local materials companies) can be formed for unified procurement, unified reserve, unified transfer, and unified transportation. Warehouses should be built on a regional basis so that supplies can be delivered to nearby worksites. This will greatly reduce the stocking of materials and help save money by reducing the number of warehouses and cutting down on transportation and administrative expenses, besides increasing efficiency and guaranteeing supplies.

Second, establish a general cement structural component company. All of the 70 or more plants producing cement structural components should be organized for unified production, unified transfer, and unified transportation. After the organization, the task of production can be divided by them according to the varieties and specifications of the components, so as to help improve the quality of products and raise labor productivity. Furthermore, unified transfer according to plan will guarantee supplies and avoid overstocking, while

supplying goods to nearby worksites will help reduce transportation and production costs.

Third, establish a general construction machinery company. All large and medium-size machines should be centrally controlled, and construction machinery stations can be set up in different areas. Construction units working in the vicinity can rent these machines and pay the charges on a unit-shift basis. This will ensure the availability of machinery, give full play to the role of machinery, reduce the possibility of its being left idle, and curtail the expenses in the use of machinery.

Restructuring the system of management will involve a wide range of problems, and the work in this respect is arduous. For the methods to be used, we should assign special persons to conduct the required research, and then lay down the specific plans for implementation. This work should be carried out step-by-step, possibly beginning with unified plans and unified transfers, to be followed by unified production, and finally by unified management.

#### 4. Organize On-the-Spot Companies, Work Districts, and Work Teams To Undertake Construction of Whole Streets and Whole Areas

This method was used in Beijing in the 1950's with great success. For example, for small areas of more than 400,000 square meters, on-the-spot companies can be formed; for small areas of 200,000-400,000 square meters, on-the-spot work districts can be formed; and for small areas of 50,000-200,000 square meters, on-the-spot work teams can be formed. The organizational system can be based on the present system, which need not be changed, and the size of the units should be based on the magnitude of the construction tasks and the length of the construction periods. Since the construction of whole streets and whole areas is now increasing, adoption of this organizational form is even more necessary. There are several advantages in this system: First, with the concentration of leadership efforts, it will be easy to give directions. Second, the work areas are relatively stable, and we can make full use of the existing production base and reduce administrative expenses by reducing the number of temporary installations. Third, there is less likelihood of personnel and machinery being moved around; this will help raise labor productivity and the machinery utilization rate. Fourth, the concentration of engineering projects will help in overall planning and speed up the progress of work.

#### 5. Persist in the Scientific Approach; Strictly Follow the Procedures for Capital Construction

The procedures for capital construction are a set of effective administration methods based on many years of experience. For example, the requirement that a feasibility study must be conducted before the determination of the planned task; that design work must precede construction, development must precede the work, underground work must precede work on the surface, municipal and public construction must precede housing construction, and support projects must precede the main projects; and other similar principles must be observed and not be violated. Otherwise, losses and punishment will result. Therefore, we suggest that 1) professional consultative organizations be set up in

the capital for municipal construction and be formed of technical, economic, social, and legal experts to work out long-range plans for the city proper and to carry out extensive research and confirmation on the key projects, so as to put the work of municipal construction on a scientific basis; 2) capital construction laws be made out to stipulate the scientific procedures for capital constructions, so that everyone can be guided accordingly; and 3) the plans, schemes, and designs for every year be completed earlier so as to strengthen the construction and development of the city, prepare for the construction to proceed in a planned and systematic way, and bring an end to the passive situation of "three lows and two highs."

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CSO: 4006/035

## DOMESTIC TRADE

### PURCHASING, SUPPLY STATIONS STUDY MARKET NEEDS

Shanghai JIEFANG RIBAO in Chinese 8 Oct 82 p 1

[Article by Gao Xiaoxiao [7559 5135 4562]: "Six Purchasing and Supply Stations Assign Teams to Make Survey of Market Needs in Various Localities"]

[Text] Since the beginning of the year, six purchasing and supply stations in Shanghai dealing with industrial articles of daily use, after having assigned over 200 survey teams to over 200 areas throughout the nation to investigate the needs of the people in the vast rural areas, the medium-sized and small cities and minority nationality regions to study market trends of various localities and to make a report of their findings to production departments have achieved excellent results in organizing the products which cater the market demand and in promoting the sale of Shanghai's industrial articles of daily use on the domestic market.

Since the Third Plenary Session of the 11th Party Central Committee, the sale of industrial articles of daily use made in Shanghai has suffered a nationwide setback due to the intense competition resulting from the rapid development in the production of such items in various localities. To cope with the new situation, the six purchasing and supply stations have, since the beginning of this year, assigned over 200 teams to make a survey of market conditions in various localities in order to investigate in depth the needs of the people in various areas throughout the nation and to organize production with a definite object in view.

According to the survey, the increased income of the peasants since the implementation of the production responsibility system has changed their purchasing patterns as well as demands. With money in their pockets, the peasants, aside from purchasing such means of production as medium and small farm machinery and implements, chemical fertilizers and insecticides to expand reproduction, generally tend to utilize their purchasing power to meet the needs of housing, articles of daily use, clothing and food in that order. Since large numbers of peasants use their purchasing power for housing construction, there is a notable increase in the need for metals for housing construction and electrical materials and appliances for the home, a decrease in the demand for high quality industrial products and clothing materials, and a general demand for good and cheap commodities at an affordable price. For instance, a bar of soap that sells for around 40

cents is in greater demand than one which sells for over 50 cents. That accounts for the popularity of such brands as Shanghai, Four-in-One, Luhua, Golden Cock and Honey Bee. The same is true of cosmetics. Most people prefer to buy shampoo ointment, hair cream and vanishing cream packed in plastic bags rather than similar products packed in bottles and sold at a higher price. Similarly, low-priced clothing fabrics are preferred.

A production policy has been formulated on the basis of comparing the findings of the survey of the sales of similar products throughout the nation. According to the policy, the output of commodities overproduced in various localities is to be reduced, while the production of items requiring a higher technical standard and which are in short supply in various localities is to be increased. A comparison has been made of the more novel commercial items produced in various localities in terms of colors, designs and models with similar products made in Shanghai, and the local factories have been instructed to find out where relevant products from Shanghai lag behind and make necessary improvements accordingly. In their investigation, the general merchandise stations, upon learning that not a few of the areas throughout the nation were capable of producing ordinary rubber shoes and that there was a surplus of that commodity, discussed with the industrial departments ways to avail themselves of the technical superiority of Shanghai to develop new products to replace the old on the basis of the different needs of the rural areas and the cities so as to increase the sale of rubber shoes throughout the nation.

As a result of their investigation, the purchasing and supply stations also acquired a better understanding of the different needs of various areas as well as the special needs of particular areas. Taking textiles as an example, most of the people along the coastal areas in the south prefer fine polyester fiber rather than long and medium-length fiber, while the people and masses in such places as Sichuan prefer thicker, sturdier and washable khaki and medium-length gabardine. Many of the residents in such large cities as Hangzhou, accustomed to having new clothes made every 2 or 3 years, have no need for clothes that last 8 or 10 years. A plan should therefore be drawn up to produce low-priced washable cotton and long and medium-length fabrics. The minority nationalities in Xinjiang are more interested in clothes and ornaments than food, daily necessities, and housing. Such minority nationalities as the Miao and the Tung prefer large and small flower patterns and multi-colored fabrics. In terms of color, fabrics with red flowers on a blue background are preferred. The elderly are partial to fine line sateen drill, indanthrene, and serge canvas. Particularly in demand are imperial bombazine which are used by the Thai to make shirts to be worn as ceremonial dresses on festive occasions. The purchasing and supply stations have made available to the industrial departments information regarding such special needs so that they may gear their production to meet inasfar as possible the needs of the minority nationalities.

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CSO: 4006/050

## DOMESTIC TRADE

### SUPPORT FOR DEVELOPMENT OF INDIVIDUAL ECONOMY URGED

Beijing ZHONGGUO CAIMAO BAO in Chinese 5 Oct 82 pp 1-2

[Article: "We Must Adopt a Positive Attitude in Promoting Proper Development of Individual Economy in Urban and Rural Areas"]

[Text] Comrade Hu Yaobang stated in his report to the 12th CPC National Congress that "encouragement should be given to the proper development of the individual economy of urban and rural working people within limits prescribed by the state and under supervision by industrial and commercial administrations as a necessary and useful supplement to the public economy." The reporter recently requested the concerned authorities of the nation's industrial and commercial administrations to answer certain questions on the subject of encouraging the development of the individual economy in the urban and rural areas at the present time.

Question: What is the situation regarding the development of individual industrial and commercial households in the urban and rural areas in recent years?

Answer: Since the Third Plenary Session of the 11th CPC Central Committee, there has been a significant resumption and development of the individual economy in the urban and rural areas. Up to the end of 1981, there were over 2.2 million persons throughout the nation holding individual industrial and commercial business permits, including over 1.2 million commune members in the rural areas and 1 million in the cities and towns, or 6.2 times the number at the end of 1981. In the course of the development of individual industrial and commercial households in the cities and towns, the various areas have provided employment to 230,000 young people. Last year, the volume of business transacted by individual industrial and commercial households in the urban and rural areas throughout the nation came to 3 billion yuan, or 1.3 percent of the total retail trade in the entire economy. What has transpired over the last 3 years indicates the correctness of the policy to encourage the development of the individual economy of urban and rural working people and the positive effect which the policy has had on making up for the deficiencies of the state-operated and collective economy, on

enlivening the market, on making things easier for the masses, and on creating more employment opportunities. In the areas where the work of restoration has been proceeding in a satisfactory manner, the dramatic increase in the number of retail networks and service outlets has considerably eased the difficulty of finding a place to eat, to have clothes made and to get repairs done.

Question: What are the problems at the present time?

Answer: One problem calling for attention is the sluggish development of the individual economy in the urban and rural areas during the last 6 months. The chief reason for this state of affairs may be attributed to the fact that the erroneous "leftist" ideology which had long plagued our economic endeavors have yet to be eradicated. Some people have yet to acquire a clear understanding of the nature and the function of the individual economy during the period of socialist construction, while others still tend to keep a wary eye on the development of the individual economy in the cities and the countryside. This has resulted in the adoption of a series of discriminatory and restrictive measures. In some places, applications for individual industrial and commercial business permits have to be approved by a number of separate units. Some areas, overly concerned about the neatness and uniformity in the appearance of the cities, have subjected individual households to harassment and forced them to relocate. Some areas compel individual households to suspend operations by limiting or cutting off their supply of commodities. Some individual households have been subjected to revocation of their business permits. Other areas resort to ingenious means to impose fees and fines. Unless a stop is put to such practices, it will be difficult to continuously and adequately develop the individual economy in the urban and rural areas.

Question: What is the proper way to deal with the problem concerning the sizable income of individual business households?

Answer: It is wrong for certain localities at the present time to treat prominent individual business households with sizable incomes as being unlawful. A factual analysis must be made to determine whether or not an individual business household abides by the law. Some individual business households devote long hours to production and business operations. Some families contribute their labor to and participate in the production and business operations of individual households. So long as there is no infringement of policy, no engagement in speculative and improper practices, and no illegitimate source of income such enterprises should be encouraged to make higher profits through their labor and be protected by the laws of the state. It should also be noted that although, unlike staff members and workers in state-operated enterprises, no deductions are made in the wages paid by individual business households, they were entirely responsible, before the insurance system came to be adopted, for births, infirmities, sicknesses and deaths, whereas the staff members and workers in state-operated enterprises were covered by labor insurance benefits. Furthermore, since the individual business households contribute more in terms of labor than staff members and workers in state-operated enterprises, it is fair and

reasonable that their income should be higher than that of staff members and workers in state-operated enterprises. If individual enterprises should engage in improper operations such as shortchanging, adulteration, driving up prices, buying up materials which are in short supply in the nation, monopolizing the market, reselling supplies on the spot and disrupting the market, then they should be educated and penalized according to the circumstances.

Question: Are the young people awaiting employment in the cities and towns permitted to employ their own masters to operate individual enterprises?

Answer: Giving assistance to young people in the cities and towns to establish individual enterprises and to find employment on their own is an important policy of the nation at the present time. According to "Certain Policy Provisions of the State Council Regarding the Non-agricultural Individual Economy in the Cities and Towns," those young people awaiting employment who are lacking in business expertise and experience may apprentice themselves to masters and those who wish to engage in individual food, service and repair businesses may place themselves under the tutelage of masters with the necessary skills over a period of time. Those who employ masters on their own must sign a contract agreed upon by the masters and the apprentices. The contracts must clearly state the duration of the apprenticeship and the wages paid to the masters. The contracts must be filed with the local industrial and commercial administrative departments. The young people awaiting employment are not permitted to engage as their masters those who are already employed as staff members and workers.

Question: What should be done to strengthen control over individual business households in the urban and rural areas?

Answer: It is necessary to develop to the full the functions of the industrial and commercial administrative departments. We suggest that the people's governments at various levels should strengthen their leadership in supporting the work of the industrial and commercial administrative departments. The industrial and commercial administrative departments should conscientiously implement and publicize the relevant policies, assist the individual industrialists and merchants to establish individual workers' associations in the counties and cities and to achieve the objective of enabling the individual workers to regulate themselves through the associations. Individual workers' associations may as a rule be established in the various regional administrative units, and teams may be set up according to the nature of the business. The chief functions of these associations, which are to be placed under the direction of the industrial and commercial administrative departments on the same level, are as follows: (1) to organize individual industrialists and merchants to study the relevant policies and decrees of the party and government and to make them aware of the importance of abiding by the laws and regulations; (2) to organize individual industrialists and merchants to share their experience in productive operations and to encourage them to improve the quality of their services; (3) to protect the legitimate rights and interests of individual

industrialists and merchants and to assist them in the solution of problems in their productive operations; (4) to assist the administrative departments of the state in exercising effective supervision and control over individual industrial and commercial households. In addition, the state should, by resorting to such economic levels as pricing, taxation and the extension of credits and by making use of the economic relationship between state-operated and collective enterprises on the one hand and individual industrial and commercial enterprises on the other, provide guidance and assistance to individual industrial and commercial households so that they may develop in a healthy manner.

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CSO: 4006/050

## Building Structures

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TITLE: "The Experimental Investigation of the Seismic Resistance Behavior of Reinforced Concrete Hollow Core Columns"

SOURCE: Beijing JIANJU JIEGOU XUEBAO [JOURNAL OF BUILDING STRUCTURES] in Chinese Vol 3 No 5, 1982 pp 21-31

TEXT OF ENGLISH ABSTRACT: Reinforced concrete hollow core columns have been used in the slab-column system structures in China. The important problem of seismic resistance behavior of such structures still needs to be studied. In this paper, the behavior of reinforced concrete hollow core columns under cyclic loading is discussed. The influence of the percentage of hollow core, the ratio between axial forces and compression strength of concrete as well as the arrangement of stirrups and longitudinal reinforcement on the hysteretic characteristics and ductility of hollow core columns are investigated and compared with those of solid columns. Thirty specimens were tested. The tests show that the ductility of columns decreases with the increasing of the hollow core area and the deformation behavior becomes worse apparently. The tests also show that the bond slippage of reinforcements in the joint area affects the deflection and the hysteresis loops.

[Continuation of JIANJU JIEGOU XUEBAO Vol 3 No 5, 1982 pp 21-31]

of the specimens significantly. In order to reflect the effect of the hollow core rate on the ductility and plastic rotation capacity of the column, a coefficient considering the effect of the hollow core rate is introduced to modify the coefficient of nominal depth of the concrete compression zone and a rule similar to that of the solid column is obtained. In addition, by analyzing the complete load-deflection curve of hollow core columns, the ultimate load capacity is acquired; it is in good agreement with the experimental results.

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TITLE: "The Application of Fuzzy Set Theory to Structure Engineering"

SOURCE: Beijing JIANJU JIEGOU XUEBAO [JOURNAL OF BUILDING STRUCTURES] in Chinese  
Vol 3 No 5, 1982 pp 32-45

TEXT OF ENGLISH ABSTRACT: In this paper, the state-of-the-art of the application of fuzzy set theory to structure engineering is summarized. The fundamental elements of fuzzy sets are presented and a tentative application to predict earthquake damage to building structures is described. Furthermore, an example using fuzzy sets for solving the problem relating to the height limit of aseismic masonry buildings in earthquake regions is given.

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CSO: 4011/20

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